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# SEARCH REQUEST FORM

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Requester's Full Name: SKRP ROSE Examiner #: \_\_\_\_\_ Date: MAY 17 2001  
Art Unit: 161Y Phone Number 308 Y609 Serial Number: 09 840844  
Mail Box and Bldg/Room Location: CM1 2001 Results Format Preferred (circle): PAPER, DISK, E-MAIL  
and

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*  
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): Robert ERIC MONTGOMERY

Earliest Priority Filing Date: 11/19/1987

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

(1) display all patents by this inventor in CAS WPIOS)

(2) please display registry numbers

for glycine acetic acid esters of claim 3

2A glyceryl triacetate

2B glyceryl acetate

2C glyceryl diacetate

for 4A hydrogen peroxide and peroxide of claim 4

4B carbamide peroxide

4C sodium percarbonate

4D sodium perborate

4E calcium peroxide

4F magnesium peroxide

4G sodium peroxide

4H poly (vinyl pyrrolidone / hydrogen peroxide

(3) whitening bleaching / stain removal with both a peroxide (complex as above) and a glycine acetic acid ester (as above)  
broadly textiles, etc.

(4) (3) with dentures

(5) (3) with teeth

(6) peroxy acetic acid production with 2A, 2B or 2C and a peroxide (as above)

STAFF USE ONLY

Type of Search

Vendors and cost where applicable

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=> d que 144

L41 567 SEA FILE=HCAPLUS ABB=ON MONTGOMERY R?/AU  
L44 19 SEA FILE=HCAPLUS ABB=ON L41 AND (DENT? OR TOOTH? OR TEETH?)

=> file wpids

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L41 567 SEA FILE=HCAPLUS ABB=ON MONTGOMERY R?/AU  
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=> dup rem 144 143

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 PROCESSING COMPLETED FOR L43  
 L45 25 DUP REM L44 L43 (13 DUPLICATES REMOVED)

=> d 145 all 1-25

L45 ANSWER 1 OF 25 HCAPLUS COPYRIGHT 2001 ACS

AN 2001:294876 HCAPLUS

DN 134:300656

TI **Tooth** whitening compositions

IN **Montgomery, R. Eric**

PA OraCeutical LLC, USA

SO U.S., 10 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM A61K007-16

ICS A61K007-20

NCL 424053000

CC 62-7 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6221341	B1	20010424	US 1998-196403	19981119
PRAI	US 1997-66187	P	19971119		
AB	Novel comps. and methods are disclosed for cosmetically treating <b>teeth</b> in a manner to increase brightness or shade of the <b>teeth</b> . The comps. include a low mol. wt. compd. having a high acetyl group functionality useful in the prodn. of a peroxy acid which then acts as a whitening agent. <b>Toothpastes</b> contain e.g. glyceryl triacetate and Na percarbonate.				
ST	<b>tooth</b> whitening compn glyceryl triacetate peroxide generator				
IT	<b>Dentifrices</b> ( <b>tooth</b> whitening comps.)				
IT	102-76-1, Glyceryl triacetate RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) ( <b>tooth</b> whitening comps.)				
IT	79-21-0, Peroxyacetic acid 7722-84-1, Hydrogen peroxide, biological studies 15630-89-4, Sodium percarbonate RL: BUU (Biological use, unclassified); FMU (Formation, unclassified); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses) ( <b>tooth</b> whitening comps.)				

RE.CNT 26

RE

- (1) Anon; EP 0545594 A1 1993 HCAPLUS
- (2) Anon; WO 9320167 1993 HCAPLUS
- (3) Anon; WO 970777 1994
- (4) Anon; WO 9711676 1997 HCAPLUS
- (5) Anon; WO 9940870 1999 HCAPLUS
- (6) Boll; US 5151212 1992 HCAPLUS
- (7) Broze; US 4800038 1989 HCAPLUS
- (8) Broze; US 5047168 1991 HCAPLUS
- (9) Church; US 5279816 1994 HCAPLUS
- (10) Damani; US 5447725 1995 HCAPLUS

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- (11) Davies; US 2955905 1960
- (12) Jones; US 3956159 1976 HCAPLUS
- (13) Michaels; US 5885554 1999 HCAPLUS
- (14) Michaels; US 5939080 1999 HCAPLUS
- (15) Montgomery; US 5816802 1998
- (16) Montgomery; US 5908614 1999 HCAPLUS
- (17) Montgomery; US 5922307 1999 HCAPLUS
- (18) Nakagawa; US 3901819 1975 HCAPLUS
- (19) Nakagawa; US 4016090 1977 HCAPLUS
- (20) Russell; US 5102574 1992 HCAPLUS
- (21) Schepers; US 5011622 1991 HCAPLUS
- (22) Schepers; US 5503765 1996 HCAPLUS
- (23) Schow; US 5290566 1994 HCAPLUS
- (24) van der Hoeven; US 4950424 1990 HCAPLUS
- (25) Viscio; US 5302375 1994 HCAPLUS
- (26) Wilsbere; US 4610799 1986 HCAPLUS

L45 ANSWER 2 OF 25 HCAPLUS COPYRIGHT 2001 ACS

AN 2001:76610 HCAPLUS

TI Familial tetralogy of Fallot caused by mutation in the jagged1 gene

AU Eldadah, Zayd A.; Hamosh, Ada; Biery, Nancy J.; **Montgomery, Robert A.**; Duke, Melinda; Elkins, Ronald; Dietz, Harry C.

CS Division of Cardiology, Institute of Genetic Medicine, The Johns Hopkins University School of Medicine, Baltimore, MD, 21287, USA

SO Hum. Mol. Genet. (2001), 10(2), 163-169  
CODEN: HMGEE5; ISSN: 0964-6906

PB Oxford University Press

DT Journal

LA English

CC 3 (Biochemical Genetics)

AB Tetralogy of Fallot (ToF) is the most common form of complex congenital heart disease, occurring in .apprx.1 in 3000 live births. Evaluation of candidate loci in a large kindred segregating autosomal dominant ToF with reduced penetrance culminated in identification of a missense mutation (G274D) in JAG1, the gene encoding jagged1, a Notch ligand expressed in the developing right heart. Nine of eleven mutation carriers manifested cardiac disease, including classic ToF, ventricular septal defect with aortic dextroposition and isolated peripheral pulmonic stenosis (PPS). All forms of ToF were represented, including variants with pulmonic stenosis, pulmonic atresia and absent pulmonary valve. No individual within this family met diagnostic criteria for any previously described clin. syndrome, including Alagille syndrome (AGS), caused by haploinsufficiency for jagged1. All mutation carriers had characteristic but variable facial features, including long, narrow and upslanting palpebral fissures, prominent nasal bridge, square **dental** arch and broad, prominent chin. This appearance was distinct from that of unaffected family members and typical AGS patients. The glycine corresponding to position 274 is highly conserved in other epidermal growth factor-like domains of jagged1 and in those of other proteins. Its substitution in other proteins has been assocd. with mild or atypical variants of disease. These data support either a relative loss-of-function or a gain-of-function pathogenetic mechanism in this family and suggest that JAG1 mutations may contribute significantly to common variants of right heart obstructive disease.

RE.CNT 31

RE

- (1) Alagille, D; J Pediatr 1975, V86, P63 MEDLINE
- (2) Altschul, S; Nucleic Acids Res 1997, V25, P3389 HCAPLUS
- (3) Crosnier, C; Gastroenterology 1999, V116, P1141 MEDLINE
- (4) Denton, P; Blood 1988, V72, P1407 HCAPLUS
- (5) Dietz, H; J Clin Invest 1992, V89, P1674 HCAPLUS
- (6) Donovan, M; Nature Genet 1996, V14, P210 HCAPLUS
- (7) Emerick, K; Hepatology 1999, V29, P822 MEDLINE
- (8) Francke, U; Am J Hum Genet 1995, V56, P1287 HCAPLUS

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- (9) Frischmeyer, P; Hum Mol Genet 1999, V8, P1893 HCAPLUS
- (10) Hamosh, A; Hum Mol Genet 1992, V1, P542 HCAPLUS
- (11) Hou, J; J Formos Med Assoc 1997, V96, P419 MEDLINE
- (12) Krantz, I; Am J Hum Genet 1998, V62, P1361 HCAPLUS
- (13) Krantz, I; Am J Med Genet 1999, V84, P56 MEDLINE
- (14) Lathrop, G; Proc Natl Acad Sci USA 1984, V81, P3443 MEDLINE
- (15) Li, L; Nature Genet 1997, V16, P243 HCAPLUS
- (16) Lindsell, C; Cell 1995, V80, P909 HCAPLUS
- (17) Lindsell, C; Mol Cell Neurosci 1996, V8, P14 HCAPLUS
- (18) Lissemore, J; Mol Phylogenet Evol 1999, V11, P308 HCAPLUS
- (19) Loomes, K; Hum Mol Genet 1999, V8, P2443 HCAPLUS
- (20) Lu, J; Pediatrics 1999, V104, P87 MEDLINE
- (21) Mehraein, Y; Hum Genet 1997, V99, P433 HCAPLUS
- (22) Nijbroek, G; Am J Hum Genet 1995, V57, P8 HCAPLUS
- (23) Oda, T; Genomics 1997, V43, P376 HCAPLUS
- (24) Oda, T; Nature Genet 1997, V16, P235 HCAPLUS
- (25) Ozcelik, T; Genomics 1991, V10, P569 HCAPLUS
- (26) Ozeki, H; Jpn J Ophthalmol 1997, V41, P422 MEDLINE
- (27) Schrijver, I; Am J Hum Genet 1999, V65, P1007 MEDLINE
- (28) Sheffield, V; Hum Mol Genet 1997, V6, P117 HCAPLUS
- (29) Stone, D; Hum Mol Genet 1998, V7, P475 HCAPLUS
- (30) Whiteman, P; J Biol Chem 1998, V273, P7807 HCAPLUS
- (31) Xue, Y; Hum Mol Genet 1999, V8, P723 HCAPLUS

L45 ANSWER 3 OF 25 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 1  
 AN 2000:314489 HCAPLUS  
 DN 132:326095  
 TI Antimicrobial compositions that protect skin and **dental** tissue  
 IN Nathoo, Salim A.; **Montgomery, R. Eric**  
 PA USA  
 SO PCT Int. Appl., 23 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61C005-00  
 ICS A61K007-16; A61K031-00; A61K031-74; C07C041-00  
 CC 63-7 (Pharmaceuticals)  
 Section cross-reference(s): 62

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000025697	A1	20000511	WO 1999-US26073	19991104
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRAI US 1998-107026 P 19981104

AB Disclosed are compns. contg. at least one antimicrobial agent and at least one volatile solvent. The compns. are applied to biol. substrates such as skin, keratinous tissue (e.g., finger nails and toenails) and **dental** tissue (e.g., **teeth** and surrounding soft tissue). A residue of the antimicrobial agent is left on the substrate, inhibiting microbial growth for a given period of time. The compns. are particularly useful in the course of **dental** procedures. In these embodiments, they are applied to **teeth** that have been drilled or otherwise prepd. to receive a **dental** restorative compn. such as a filling or crown, or a **dental** prosthetic device. An antimicrobial **dental** primer and adhesive compn. contained triclosan 0.2, acetone 79.91, urethane dimethacrylate 10,

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methacryloyloxyethyl maleate 5, triethylene glycol dimethacrylate 5, camphorquinone 0.25, and 4-Et dimethylaminobenzoate 0.6 %.

ST **dental** skin compn antimicrobial volatile solvent; triclosan acetone adhesive **dental** primer

IT **Dental** materials and appliances  
(adhesives; antimicrobial compns. for protection of skin and **dental** tissue)

IT Antibacterial agents  
Cosmetics  
(antimicrobial compns. for protection of skin and **dental** tissue)

IT Phenols, biological studies  
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(antimicrobial compns. for protection of skin and **dental** tissue)

IT Alcohols, biological studies  
Aldehydes, biological studies  
Ketones, biological studies  
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(as volatile solvent; antimicrobial compns. for protection of skin and **dental** tissue)

IT Anti-inflammatory agents  
(nonsteroidal; antimicrobial compns. for protection of skin and **dental** tissue)

IT **Dental** materials and appliances  
(primers; antimicrobial compns. for protection of skin and **dental** tissue)

IT 65-85-0D, Benzoic acid, esters 87-17-2D, Salicylanilide, halogenated derivs. 3380-34-5, Triclosan  
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(antimicrobial compns. for protection of skin and **dental** tissue)

IT 60-29-7, Diethyl ether, biological studies 64-17-5, Ethanol, biological studies 67-64-1, Acetone, biological studies 123-38-6, Propionaldehyde, biological studies 141-78-6, Ethyl acetate, biological studies 2530-85-0  
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(as volatile solvent; antimicrobial compns. for protection of skin and **dental** tissue)

RE.CNT 5

RE

- (1) Mitra; US 5866630 A 1999 HCAPLUS
- (2) Mitra; US 5876208 A 1999
- (3) Mitra; US 5888491 A 1999 HCAPLUS
- (4) Rozzi; US 5607663 A 1997 HCAPLUS
- (5) Rozzi; US 5662887 A 1997 HCAPLUS

L45 ANSWER 4 OF 25 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 2

AN 1999:549130 HCAPLUS

DN 131:161675

TI Curable compositions with antimicrobial properties

IN **Montgomery, R. Eric**; Nathoo, Salim A.

PA Oraceutical, LLC, USA

SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K006-00

CC 63-7 (Pharmaceuticals)

FAN.CNT 2

KATHLEEN FULLER EIC1700 308-4290

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9942080	A2	19990826	WO 1999-US3651	19990219
	WO 9942080	A3	19991007		
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9933038	A1	19990906	AU 1999-33038	19990219
	EP 1056430	A2	20001206	EP 1999-934240	19990219
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	US 1998-75176	P	19980219		
	US 1998-75246	P	19980219		
	US 1998-94823	P	19980731		
	WO 1999-US3651	W	19990219		
AB	Novel curable compns. are disclosed which include a water insol. antimicrobial agent. The curable compns. are useful in inhibiting the growth of bacteria on the surface of the curable compn., within the curable compns. and in a vol. adjacent to the curable compn. Herculite XRV restorative material was modified to include triclosan. The antimicrobial activity of triclosan was demonstrated after release into bacteria media.				
ST	<b>dental</b> curable compn antimicrobial				
IT	<b>Dental</b> materials and appliances (adhesives; antimicrobial <b>denture</b> adhesive compn.)				
IT	Antibacterial agents <b>Dental</b> materials and appliances Polymerization catalysts Prosthetic materials and Prosthetics (antimicrobial <b>denture</b> adhesive compn.)				
IT	Polyvinyl butyrals RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (antimicrobial <b>denture</b> adhesive compn.)				
IT	Fluoropolymers, biological studies RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (curable <b>dental</b> compns. with antimicrobial properties)				
IT	<b>Dental</b> materials and appliances ( <b>denture</b> adhesives; antimicrobial <b>denture</b> adhesive compn.)				
IT	Aluminosilicate glasses Fluoride glasses RL: MOA (Modifier or additive use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (fluoroaluminosilicate; antimicrobial <b>denture</b> adhesive compn.)				
IT	<b>Dental</b> materials and appliances (resins; antimicrobial <b>denture</b> adhesive compn.)				
IT	97-90-5, Ethylene glycol dimethacrylate 109-16-0, Triethylene glycol dimethacrylate 2082-81-7 2358-84-1 3290-92-4, Trimethylolpropane trimethacrylate 6606-59-3, 1,6-Hexanediol dimethacrylate 25852-47-5, Polyethylene glycol dimethacrylate 72829-09-5, 1,12-Dodecanediol dimethacrylate RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (crosslinking agent; curable <b>dental</b> compns. with antimicrobial properties)				

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IT 3380-34-5  
 RL: BAC (Biological activity or effector, except adverse); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (curable **dental** compns. with antimicrobial properties)

IT 94-36-0, Benzoyl peroxide, biological studies 105-74-8, Lauroyl peroxide  
 RL: CAT (Catalyst use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (curable **dental** compns. with antimicrobial properties)

IT 1306-06-5, Hydroxyapatite 1344-28-1, Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>), biological studies 7631-86-9, Silica, biological studies 13463-67-7, Titania, biological studies 14808-60-7, Quartz, biological studies  
 RL: MOA (Modifier or additive use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (curable **dental** compns. with antimicrobial properties)

IT 65-85-0D, Benzoic acid, esters 80-62-6 87-17-2D, Salicylanilide, halo derivs. 97-63-2, Ethyl methacrylate 97-86-9, Isobutyl methacrylate 97-88-1, Butyl methacrylate 101-84-8D, Diphenyl ether, halo derivs. 102-07-8D, Carbanilide, halo derivs. 108-95-2D, Phenol, derivs. 868-77-9 1565-94-2, Bis-GMA 2210-28-8, Propyl methacrylate 2455-24-5, Tetrahydrofurfuryl methacrylate 4655-34-9, Isopropyl methacrylate 5888-33-5 7534-94-3, Isobornyl methacrylate 9002-84-0 9002-88-4, Polyethylene 9003-01-4, Poly(acrylic acid) 9003-07-0, Polypropylene 9003-20-7, Polyvinyl acetate 9003-39-8, Pvp 9003-42-3, Poly(ethyl methacrylate) 9003-63-8, Poly(butyl methacrylate) 9011-14-7, Poly(methyl methacrylate) 9011-16-9, Maleic anhydridemethyl vinyl ether copolymer 20166-49-8 25087-26-7, Poly(methacrylic acid) 25685-29-4, Ethyl methacrylatemethyl methacrylate copolymer 25736-86-1, Polyethylene glycol monomethacrylate 27813-02-1, Hydroxypropyl methacrylate 29721-79-7, Hydroxybutyl methacrylate 41637-38-1, Ethoxylated bisphenol A dimethacrylate 45103-58-0, Methoxyethoxyethyl methacrylate 45127-97-7, 2-Propenoic acid, 2-methyl-, 2-(2-ethoxyethoxy)ethyl ester 72869-86-4, Urethane dimethacrylate  
 RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (curable **dental** compns. with antimicrobial properties)

L45 ANSWER 5 OF 25 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 3

AN 1999:549129 HCAPLUS

DN 131:161674

TI Antimicrobial **denture** adhesive composition

IN **Montgomery, R. Eric**; Wolf, Robert O.

PA Oraceutical, LLC, USA

SO PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K006-00

CC 63-7 (Pharmaceuticals)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9942079	A2	19990826	WO 1999-US3588	19990219
	WO 9942079	A3	19991014		
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	AU 9927744	A1	19990906	AU 1999-27744	19990219
	KATHLEEN FULLER EIC1700 308-4290				

EP 1056429 A2 20001206 EP 1999-908266 19990219  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, FI

PRAI US 1998-75176 P 19980219  
 US 1998-75246 P 19980219  
 US 1998-94823 P 19980731  
 WO 1999-US3588 W 19990219

AB Novel curable compns. are disclosed which include a water insol.  
 antimicrobial agent. The curable compns. are useful in inhibiting the  
 growth of bacteria on the surface of the curable compn., within the  
 curable compns. and in a vol. adjacent to the curable compn. Com.  
 available permanent restorative Herculite XRV was modified to include  
 water-insol. triclosan. Triclosan was release into surrounding media in  
 sufficiently high concs. to inhibit growth of Streptococcus mutans and  
 Pseudomonas aeruginosa.

ST antibacterial **denture** adhesive; triclosan **denture**  
 adhesive

IT Antibacterial agents  
 Streptococcus mutans  
 (antimicrobial **denture** adhesive compn.)

IT **Dental** materials and appliances  
 (**denture** adhesives; antimicrobial **denture** adhesive  
 compn.)

IT 3380-34-5  
 RL: BAC (Biological activity or effector, except adverse); THU  
 (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (antimicrobial **denture** adhesive compn.)

IT 65-85-0D, Benzoic acid, esters 87-17-2D, Salicylanilide, halo derivs.  
 101-84-8D, Diphenyl ether, halo derivs. 102-07-8D, Carbanilide, halo  
 derivs. 108-95-2D, Phenol, derivs.  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (antimicrobial **denture** adhesive compn.)

L45 ANSWER 6 OF 25 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 4  
 AN 1999:528989 HCAPLUS  
 DN 131:149112  
 TI Light-activated **tooth** whitening composition and method of using  
 same

IN **Montgomery, Robert Eric**; Nathoo, Salim A.; Cipolla, Anthony John  
 PA Britesmile, Inc., USA  
 SO PCT Int. Appl., 46 pp.  
 CODEN: PIXXD2

DT Patent  
 LA English

IC ICM A61C003-00  
 ICS A61C005-00; A61K007-16; A61K033-40

CC 62-7 (Essential Oils and Cosmetics)  
 Section cross-reference(s): 63

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9940870	A1	19990819	WO 1999-US3100	19990212
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,			
	DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,			
	KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,			
	MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,			
	TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,			
	FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,			
	CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 6162055	A	20001219	US 1999-234038	19990119
US 9927647	A1	19990830	AU 1999-27647	19990212
EP 1054642	A1	20001129	EP 1999-908146	19990212
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,			
	KATHLEEN FULLER EIC1700 308-4290			

IE, SI, LT, LV, FI, RO  
 NO 2000004046 A 20000925 NO 2000-4046 20000811  
 PRAI US 1998-74708 P 19980213  
 US 1998-75222 P 19980219  
 US 1999-233793 A 19990119  
 US 1999-234038 A 19990119  
 WO 1999-US3100 W 19990212

AB The present invention provides a **tooth** whitening compn. having a transparent first component that is a carrier compd. and a transparent second component that is an oxidizing compd. which when applied to a stained **tooth** and exposed to actinic light is activated to facilitate **tooth** whitening. The invention also provides a method for light-activated **tooth** whitening which comprises applying a **tooth**-whitening compn. to one or more **teeth** and exposing the compn. to actinic light to activate the oxidizing compd. The present invention further provides a device for **tooth** whitening which has a light source, at least one optical output, a projection means for holding and positioning the optical output outside of a patient's mouth in a manner so as to provide approx. simultaneous and uniform illumination of a patient's front **teeth** by the optical output; and a connection means for connecting the light source to the optical output. The invention also provides methods of using the device. A transparent gel was prep'd. contg. distd. water 49.4, 1-hydroxyethylidene-1,1-diphosphonic acid 1, glycerin 5, hydrogen peroxide (35 %) 42.9, Carbopol 974P 1.7%, and ammonium hydroxide (29 %) q.s. to pH 5.5. Stained bovine enamel slabs were coated with a 1-2 mm film of the compn. and exposed to pulsed actinic radiation from an argon plasma arc light source.

ST light activated **tooth** whitening peroxide carboxypolymethylene  
 IT **Dental** materials and appliances  
 (devices equipped with light source and optical output; light-activated **tooth** whitening compns. contg. carboxypolymethylene gel and oxidants and photoactivators)

IT Ketones, biological studies  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (diketones; light-activated **tooth** whitening compns. contg. carboxypolymethylene gel and oxidants and photoactivators)

IT Fiber optics  
 (fiber-optic instruments; light-activated **tooth** whitening compns. contg. carboxypolymethylene gel and oxidants and photoactivators)

IT Optical instruments  
 (fiber-optic; light-activated **tooth** whitening compns. contg. carboxypolymethylene gel and oxidants and photoactivators)

IT Bleaching  
**Dental** materials and appliances  
 Photosensitizers (pharmaceutical)  
**Tooth**  
 (light-activated **tooth** whitening compns. contg. carboxypolymethylene gel and oxidants and photoactivators)

IT Metallophthalocyanines  
 Peroxy acids  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (light-activated **tooth** whitening compns. contg. carboxypolymethylene gel and oxidants and photoactivators)

IT Semiconductor materials  
 (particles; light-activated **tooth** whitening compns. contg. carboxypolymethylene gel and oxidants and photoactivators)

IT Alkali metal oxides  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (peroxides; light-activated **tooth** whitening compns. contg.

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- carboxypolymethylene gel and oxidants and photoactivators)
- IT 95-14-7D, 1H-Benzotriazole, derivs. 119-61-9D, Benzophenone, derivs.  
124-43-6, Carbamide peroxide 563-69-9D, Percarbonic acid, alkali metal  
salts 2809-21-4, 1-Hydroxyethylidene-1,1-diphosphonic acid 7722-84-1,  
Hydrogen peroxide, biological studies 12674-33-8D, Perboric acid, alkali  
metal salts 151687-96-6, Carbopol 974p  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(light-activated **tooth** whitening compns. contg.  
carboxypolymethylene gel and oxidants and photoactivators)
- IT 1314-13-2, Zinc oxide, biological studies 13463-67-7, Titania,  
biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(particles; light-activated **tooth** whitening compns. contg.  
carboxypolymethylene gel and oxidants and photoactivators)
- IT 50-78-2, Acetylsalicylic acid 102-76-1, Glycerol triacetate 10543-57-4  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(peroxyacid precursor; light-activated **tooth** whitening  
compns. contg. carboxypolymethylene gel and oxidants and  
photoactivators)

RE.CNT 15

RE

- (1) Ardior; FR 2645734 A1 1990
- (2) Becker; US 4952143 A 1990
- (3) Benedict; US 4256730 A 1981 HCAPLUS
- (4) Cheslak; US 4790752 A 1988
- (5) Cheslak; US 4790752 A 1988
- (6) Church; US 5279816 A 1994 HCAPLUS
- (7) Friedman; US 4661070 A 1987
- (8) Montgomery; US 5816802 A 1998
- (9) Montgomery; WO 9804235 A1 1998 HCAPLUS
- (10) Pellico; US 5718886 A 1998 HCAPLUS
- (11) Prencipe; US 5256402 A 1993 HCAPLUS
- (12) Rudy; US 4971782 A 1990 HCAPLUS
- (13) Ultradent Products Inc; WO 9114650 A1 1991 HCAPLUS
- (14) Viscio; US 5302375 A 1994 HCAPLUS
- (15) Zaragoza, T; US 4983381 A 1991

L45 ANSWER 7 OF 25 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 5

AN 1998:98301 HCAPLUS

DN 128:145181

TI Chlorine dioxide **tooth** whitening compositionsIN **Montgomery, Robert Eric**

PA Montgomery, Robert Eric, USA

SO PCT Int. Appl., 20 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K007-20

ICS A61K007-16

CC 62-7 (Essential Oils and Cosmetics)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9804235	A1	19980205	WO 1997-US13467	19970728
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,				
KATHLEEN FULLER EIC1700 308-4290				

GN, ML, MR, NE, SN, TD, TG

CA 2261741	AA	19980205	CA 1997-2261741	19970728
AU 9739674	A1	19980220	AU 1997-39674	19970728
EP 917455	A1	19990526	EP 1997-937070	19970728

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

US 5944528	A	19990831	US 1997-901261	19970728
CN 1230107	A	19990929	CN 1997-197855	19970728
BR 9710779	A	20001024	BR 1997-10779	19970728
JP 2000516221	T2	20001205	JP 1998-509145	19970728

PRAI US 1996-22384 P 19960729  
 WO 1997-US13467 W 19970728

AB A compn. having an effective dosage of chlorine dioxide for causing a visible change in the whiteness of a **tooth** surface is disclosed. The compn. includes a first formulation having a chlorine dioxide precursor and a second formulation having an acidulant capable of generating chlorine dioxide upon contact with the precursor. Upon admixt. of the first and second formulations to produce chlorine dioxide, the compn. has a pH in the range of from about 3.0 to about 4.5. To whiten **teeth**, the first and second formulations may be mixed with one another prior to application of the resulting mixt. to the **teeth**. Alternatively, one of the first and second formulations may initially be applied to the **teeth** prior to the application of the remaining formulation. The inventive compn. is formulated to cause a visible change in the whiteness of a **tooth** surface in a relatively short period of time. A chlorine dioxide precursor compn. contained water 983.3, and sodium chlorite 16.7g. An acidulant compn. contained water 913.1, glycerin 50.0, methylparaben 1.5, Carbopol 974P 50.0, anhyd. citric acid 3.0, and sodium hydroxide 2.4g. The mixt. of above compns. was effective in removing **tooth** stains in an in vitro stained bovine enamel model.

ST chlorine dioxide **tooth** whitening acid **dentifrice**

IT Polymers, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(acid-stable; chlorine dioxide **tooth** whitening compns.)

IT Chlorates

Chlorites

RL: RCT (Reactant)

(alkali metal salts; chlorine dioxide **tooth** whitening compns.)IT **Dentifrices**

Stabilizing agents

Thickening agents

(chlorine dioxide **tooth** whitening compns.)

IT Polyoxyalkylenes, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(chlorine dioxide **tooth** whitening compns.)

IT Acids, reactions

RL: RCT (Reactant)

(chlorine dioxide **tooth** whitening compns.)

IT 9000-30-0, Guar gum 11138-66-2, Xanthan gum 25322-68-3 151687-96-6, Carbopol 974P

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(chlorine dioxide **tooth** whitening compns.)

IT 10049-04-4P, Chlorine dioxide

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(chlorine dioxide **tooth** whitening compns.)

IT 77-92-9, Citric acid, reactions 6915-15-7, Malic acid 7758-19-2, Sodium chlorite 9007-20-9, Carboxypolymethylene

RL: RCT (Reactant)

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(chlorine dioxide **tooth** whitening compns.)

L45 ANSWER 8 OF 25 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD  
 AN 1998-556117 [47] WPIDS  
 DNN N1998-433511  
 TI Flexible **dental** tray for bleaching **teeth** - has two surfaces with connector defining upper and lower troughs with different curvatures to users **teeth**.  
 DC P32  
 IN MONTGOMERY, R E  
 PA (INDE-N) INDEX DENTAL SCI INC; (MONT-I) MONTGOMERY R E  
 CYC 1  
 PI US 5816802 A 19981006 (199847)\* 6p A61C007-08  
 ADT US 5816802 A US 1995-533148 19950925  
 PRAI US 1995-533148 19950925  
 IC ICM A61C007-08  
 ICS A61C017-00  
 AB US 5816802 A UPAB: 19981125  
 The **dental** tray has two surfaces (100,115), each with a radius of curvature different from that of a **dentition** of the user, and a connector (130) joining the two surfaces. The connector and the surfaces are integrally moulded to define an upper trough (135) and a lower trough (140), each with a radius of curvature different from that of the **dentition** of the user.  
 When the tray is inserted into the user's mouth, the surfaces apply pressure against **tooth** surfaces of the user. A **tooth** bleaching composition within the upper and lower troughs of the tray comes into contact with the user's **teeth**.  
 ADVANTAGE - Exerts pressure on the **tooth** surface when worn by the user.  
 Dwg.1/6  
 FS GMPI  
 FA AB; GI

L45 ANSWER 9 OF 25 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD  
 AN 1998-270833 [24] WPIDS  
 DNN N1998-212726  
 TI Pattern sizing tool for use as milling device to remove portion of surface of stiff material - includes pair of upper and lower arms that are coupled together at their ends to be scissored and are spring biased apart.  
 DC P54  
 IN MONTGOMERY, R B  
 PA (MONT-I) MONTGOMERY R B  
 CYC 1  
 PI US 5743686 A 19980428 (199824)\* 8p B23C001-20  
 ADT US 5743686 A US 1996-747251 19961118  
 PRAI US 1996-747251 19961118  
 IC ICM B23C001-20  
 AB US 5743686 A UPAB: 19980617  
 The tool (10) includes a pair of upper (15) and lower (16) arms that are coupled together at their ends to be scissored and are spring biased apart. The upper arm includes a mount (20) with an arrangement for maintaining a **dental** rotary grinder on it that has a chuck for mounting a milling burr (12). The milling burr has a surface (13) opposite to an end of a footing that is maintained to extend from the lower arm whereby, when a **dental** technician manually moves the tool arms together the milling burr surface is moved towards the footing end whereon that technician has positioned a hard plastic coping (11), or the like, that is preferably formed from a light cure resinous material.  
 The tool includes a stop to limit travel of the turning milling burr surface towards the footing end and is used by the technician to mill the coping to a desired wall thickness, by the technician manually moving the arms together, and repositioning the coping on the footing who repeats the process until the entire coping surface has been milled.

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USE - Particularly useful for milling a hard plastic coping like that produced in a **tooth** replacement procedure for forming, from that coping, a crown as a replacement **tooth** in a practice of a "lost wax casting procedure".

Dwg.1/3

FS GMPI  
FA AB; GI

L45 ANSWER 10 OF 25 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 6  
AN 1997:332433 HCAPLUS  
DN 126:308649  
TI **Tooth** bleaching compositions containing hydrogen peroxide  
IN **Montgomery, Robert Eric**  
PA Montgomery, Robert Eric, USA  
SO PCT Int. Appl., 21 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
IC ICM A61K007-20  
ICS A61K007-00  
CC 62-7 (Essential Oils and Cosmetics)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9711676	A1	19970403	WO 1996-US15366	19960925
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA				
	CA 2238764	AA	19970403	CA 1996-2238764	19960925
	AU 9672455	A1	19970417	AU 1996-72455	19960925
	EP 862408	A1	19980909	EP 1996-933896	19960925
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	US 5922307	A	19990713	US 1996-719569	19960925
PRAI	US 1995-4258		19950925		
	WO 1996-US15366		19960925		
AB	Hydrogen peroxide-contg. comps. that are maintained at a substantially const. pH range of 6.0-10.0 during the <b>tooth</b> -bleaching procedure in the presence of a calcium chelating agent are claimed. A stable <b>tooth</b> -bleaching formulation contained water 86.41, 1-hydroxyethylidene-1,1-diphosphonic acid 0.02, sodium stannate trihydrate 0.02, 35% hydrogen peroxide 10.30, Carbopol 974P 2.5%, and sodium hydroxide q.s. pH = 7.0.				
ST	<b>tooth</b> bleaching compn hydrogen peroxide				
IT	Diphosphates Polyphosphates RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (alkali metal salts; <b>tooth</b> bleaching comps. contg. hydrogen peroxide)				
IT	Chelating agents <b>Dentifrices</b> Stabilizing agents Thickening agents ( <b>tooth</b> bleaching comps. contg. hydrogen peroxide)				
IT	563-69-9, Carbonoperoxoic acid RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (salts; <b>tooth</b> bleaching comps. contg. hydrogen peroxide)				
IT	60-00-4, Edta, biological studies 62-33-9, Calcium disodium edta				

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77-92-9, Citric acid, biological studies 77-92-9D, Citric acid, salts  
 124-43-6, Carbamide peroxide 526-95-4, Gluconic acid 526-95-4D,  
 Gluconic acid, salts 2809-21-4, 1-Hydroxyethylidene-1,1-diphosphonic  
 acid 4452-58-8, Sodium percarbonate 7722-84-1, Hydrogen peroxide,  
 biological studies 7758-16-9 36411-33-3.

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)

(tooth bleaching compns. contg. hydrogen peroxide)

L45 ANSWER 11 OF 25 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 7  
 AN 1997:257483 HCAPLUS  
 DN 126:242633  
 TI Peroxidase-activating oral care compositions  
 IN **Montgomery, Robert Eric**  
 PA Montgomery, Robert Eric, USA  
 SO PCT Int. Appl., 26 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K007-20  
 CC 62-7 (Essential Oils and Cosmetics)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9707777	A1	19970306	WO 1996-US13240	19960815
	W:				
	AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE,				
	ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS,				
	LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD,				
	SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY,				
	KG, KZ, MD, RU, TJ, TM				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,				
	IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA				
	AU 9667254	A1	19970319	AU 1996-67254	19960815
	US 5908614	A	19990601	US 1996-698474	19960815
PRAI	US 1995-2361		19950815		
	US 1996-12537		19960229		
	WO 1996-US13240		19960815		
AB	An oral care compn. includes a nonenzymic water-sol. H2O2 precursor (e.g. an alkali metal percarbonate) which releases H2O2 upon contact with water to activate the peroxidase system in the oral cavity. The compn. further contains a pH-adjusting agent to produce a selected pH that facilitates the rapid release of H2O2 from the precursor. Thus, an oral gel contained glycerin 93.45, Carbopol 980 2.00, carbamide peroxide 0.05, distd. water 3.00, and Tris buffer 1.50 g.				
ST	peroxide precursor <b>dentifrice</b> ; peroxidase activation mouth <b>dentifrice</b>				
IT	Alkali metal hydroxides Amines, biological studies Organic acids RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (buffers; peroxidase-activating oral care compns.)				
IT	<b>Dentifrices</b> (dental floss; peroxidase-activating oral care compns.)				
IT	<b>Dentifrices</b> (gels; peroxidase-activating oral care compns.)				
IT	Drug delivery systems (lozenges; peroxidase-activating oral care compns.)				
IT	Mouth (peroxidase activation in; peroxidase-activating oral care compns.)				
IT	Buffers Chewing gum <b>Dentifrices</b> (peroxidase-activating oral care compns.)				

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IT Ammonium polyphosphates  
Halides  
Peroxides, biological studies  
Sodium polyphosphates  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(peroxidase-activating oral care compns.)

IT Polyphosphoric acids  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(potassium salts; peroxidase-activating oral care compns.)

IT Hide  
(raw-, animal chews; peroxidase-activating oral care compns.)

IT 9003-99-0, Peroxidase  
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)  
(activation of; peroxidase-activating oral care compns.)

IT 64-19-7, Acetic acid, biological studies 1336-21-6, Ammonium hydroxide  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(buffer; peroxidase-activating oral care compns.)

IT 7664-38-2D, Phosphoric acid, alkali metal salts  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(buffers; peroxidase-activating oral care compns.)

IT 68-04-2, 77-86-1, Tris(hydroxymethyl)aminomethane 77-92-9, Citric acid, biological studies 102-71-6, Triethanolamine, biological studies 107-92-6, Butyric acid, biological studies 110-94-1, Glutaric acid 124-04-9, Adipic acid, biological studies 124-43-6, Carbamide peroxide 127-08-2, Potassium acetate 127-09-3, Sodium acetate 141-82-2, Malonic acid, biological studies 141-95-7, Sodium malonate 156-54-7, Sodium butyrate 299-27-4, Potassium gluconate 333-20-0, Potassium thiocyanate 463-56-9D, Thiocyanic acid, salts 526-95-4, Gluconic acid 527-07-1, Sodium gluconate 540-72-7, Sodium thiocyanate 563-69-9D, Percarbonic acid, alkali metal salts 585-09-1, Potassium malate 589-39-9, Potassium butyrate 631-61-8, Ammonium acetate 676-46-0, Sodium malate 866-84-2 1310-58-3, Potassium hydroxide, biological studies 1310-73-2, Sodium hydroxide, biological studies 3458-72-8 6283-27-8, Ammonium malate 6915-15-7, Malic acid 7320-34-5, Potassium pyrophosphate 7486-38-6 7632-05-5 7722-84-1D, Hydrogen peroxide, precursors 7722-88-5 10124-31-9 12674-33-8D, Perboric acid, alkali metal salts 13095-67-5, Potassium malonate 13521-83-0 13765-35-0 14287-04-8, Ammonium butyrate 15630-89-4 16068-46-5 16887-00-6, Chloride, biological studies 18815-40-2, Ammonium malonate 19090-60-9, Ammonium adipate 19147-16-1 19222-41-4, Ammonium gluconate 20461-54-5, Iodide, biological studies 24959-67-9, Bromide, biological studies 29750-34-3, Ammonium glutarate 39649-90-6, Potassium glutarate  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(peroxidase-activating oral care compns.)

IT 63296-34-4P, Hypothiocyanite  
RL: PNU (Preparation, unclassified); PREP (Preparation)  
(peroxidase-activating oral care compns.)

L45 ANSWER 12 OF 25 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 8  
AN 1997:244361 HCAPLUS  
DN 126:224532  
TI Improved proteinaceous animal chew with **dentally** therapeutic cation  
IN **Montgomery, Robert Eric**  
PA Montgomery, Robert, Eric, USA  
SO PCT Int. Appl., 13 pp.  
CODEN: PIXXD2  
DT Patent  
LA English

IC ICM A23K001-18  
ICS A23K001-17; A23K001-175; A61K007-16  
CC 17-12 (Food and Feed Chemistry)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9706696	A1	19970227	WO 1996-US13236	19960815
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA				
	AU 9667752	A1	19970312	AU 1996-67752	19960815
	US 6074662	A	20000613	US 1996-698475	19960815
PRAI	US 1995-2345	P	19950815		
	WO 1996-US13236	W	19960815		
AB	This invention relates to chewable objects for animals which contain, as a <b>dentally</b> therapeutic ingredient, one or more cationic substances. The inventive therapeutic animal chews are of sufficient durability to allow for a chewing cycle long enough for the release of the aforementioned cationic substances into saliva. Furthermore, the inventive animal chews may contain an effective amt. of a counter-ionic compd., such as an alkali metal salt, to allow for rapid solubilization of the cationic antimicrobial substance into the saliva of an animal chewing thereupon, esp. when delivered or carried on a carrier having a neg. charged surface.				
ST	rawhide chew <b>dental</b> therapeutic cation				
IT	Hygiene (animal <b>dental</b> ; improved proteinaceous animal chew with <b>dentally</b> therapeutic cation)				
IT	Behavior (animal) (chewing; improved proteinaceous animal chew with <b>dentally</b> therapeutic cation)				
IT	Antimicrobial agents (improved proteinaceous animal chew with <b>dentally</b> therapeutic cation)				
IT	Alkylbenzyltrimethylammonium chlorides RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (improved proteinaceous animal chew with <b>dentally</b> therapeutic cation)				
IT	Proteins (general), biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (rawhide chew; improved proteinaceous animal chew with <b>dentally</b> therapeutic cation)				
IT	64-19-7D, Acetic acid, sodium and potassium salts 526-95-4D, Gluconic acid, sodium and potassium salts 527-07-1, Sodium gluconate 7647-01-0D, Hydrochloric acid, sodium and potassium salts 10035-10-6D, Hydrobromic acid, sodium and potassium salts RL: PEP (Physical, engineering or chemical process); PROC (Process) (improved proteinaceous animal chew with <b>dentally</b> therapeutic cation)				
IT	55-56-1, Chlorhexidine 56-95-1, Chlorhexidine diacetate 121-54-0, Benzethonium chloride 123-03-5 538-71-6, Domiphen bromide 18472-51-0, Chlorhexidine digluconate 22573-93-9, Alexidine RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (improved proteinaceous animal chew with <b>dentally</b> therapeutic cation)				

L45 ANSWER 13 OF 25 HCAPLUS COPYRIGHT 2001 ACS

AN 1997:780709 HCAPLUS

DN 128:123187

TI Applications of a new methacrylate-based anion stationary phase for the  
KATHLEEN FULLER EIC1700 308-4290

- separation of inorganic anions
- AU Nair, Lakshmy M.; Saari-Nordhaus, Raaidah; **Montgomery, Robert M.**  
 CS Waukegan Road, Alltech Associates, Deerfield, IL 60015, USA  
 SO J. Chromatogr., A (1997), 789(1 + 2), 127-134  
 CODEN: JCRAEY; ISSN: 0021-9673
- PB Elsevier Science B.V.  
 DT Journal  
 LA English  
 CC 79-4 (Inorganic Analytical Chemistry)  
 Section cross-reference(s): 9, 56, 61, 64
- AB A new methacrylate-based packing with quaternary amine functional groups for the anal. of inorg. anions by ion chromatog. is described. Columns packed with this new material work for both suppressor-based and single-column ion chromatog. methods. A variety of eluents such as carbonate-bicarbonate, phthalic acid and p-hydroxybenzoic acid are compatible with this column. The packing is stable under severe conditions such as switching from high pH to low pH eluents, or vice versa. The hydrophilic nature of the packing provides excellent peak shape for all common inorg. anions, including hydrophobic anions such as nitrate and iodide. The performance of the column with different eluents is demonstrated along with the applications using both single-column and suppressor-based ion chromatog. systems.
- ST methacrylate anion stationary phase; anion sepn ion chromatog Allsep packing
- IT **Dentifrices**  
 (anions detn. in **toothpaste** by ion chromatog. using Allsep stationary phase based on methacrylate with quaternary amine functional groups)
- IT Urine analysis  
 (anions detn. in urine by ion chromatog. using Allsep stationary phase based on methacrylate with quaternary amine functional groups)
- IT Anion exchangers  
 Anions  
 (anions sepn. by ion chromatog. using Allsep stationary phase based on methacrylate with quaternary amine functional groups)
- IT Ion chromatographic stationary phases  
 Ion chromatography  
 (applications of new methacrylate-based anion stationary phase for sepn. of inorg. anions)
- IT 14343-69-2, Azide 14797-73-0, Perchlorate  
 RL: ANT (Analyte); ANST (Analytical study)  
 (anions detn. in air bag effluent by ion chromatog. using Allsep stationary phase based on methacrylate with quaternary amine functional groups)
- IT 7732-18-5, Water, analysis  
 RL: AMX (Analytical matrix); ANST (Analytical study)  
 (anions detn. in water by ion chromatog. using Allsep stationary phase based on methacrylate with quaternary amine functional groups)
- IT 144-62-7, Oxalic acid, analysis 302-04-5, Thiocyanate, analysis  
 3812-32-6, Carbonate, analysis 14265-44-2, Phosphate, analysis  
 14383-50-7, Thiosulfate (S2O32-) 14797-55-8, Nitrate, analysis  
 14797-65-0, Nitrite, analysis 14808-79-8, Sulfate, analysis  
 14901-63-4, Phosphite 15460-68-1, Hypophosphite 16887-00-6, Chloride, analysis  
 16984-48-8, Fluoride, analysis 20461-54-5, Iodide, analysis  
 24959-67-9, Bromide, analysis  
 RL: ANT (Analyte); PEP (Physical, engineering or chemical process); ANST (Analytical study); PROC (Process)  
 (anions sepn. by ion chromatog. using Allsep stationary phase based on methacrylate with quaternary amine functional groups)
- IT 201491-14-7, Allsep  
 RL: ARU (Analytical role, unclassified); PEP (Physical, engineering or chemical process); ANST (Analytical study); PROC (Process)  
 (anions sepn. by ion chromatog. using Allsep stationary phase based on methacrylate with quaternary amine functional groups)

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IT 11104-59-9, Chromate 17084-08-1, Hexafluorosilicate  
 RL: ANT (Analyte); PEP (Physical, engineering or chemical process); ANST  
 (Analytical study); PROC (Process)  
 (hexafluorosilicate, nitrite, sulfate and chromate sepn. in chromate  
 plating bath soln. by ion chromatog. using Allsep stationary phase  
 based on methacrylate with quaternary amine functional groups)

L45 ANSWER 14 OF 25 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 9  
 AN 1994:541280 HCAPLUS  
 DN 121:141280  
 TI Oral compositions with phosphorus-containing antiplaque anticalculus  
 agents  
 IN **Montgomery, Ronald Earl**; Pyrz, Joseph Wasyl; Coyle-Rees,  
 Margaret Mary  
 PA Procter and Gamble Co., USA  
 SO PCT Int. Appl., 23 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K007-16  
 CC 62-7 (Essential Oils and Cosmetics)  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9414407	A1	19940707	WO 1993-US11787	19931206
	W: AU, BB, BG, BR, BY, CA, CZ, FI, HU, JP, KP, KR, KZ, LK, LV, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, UZ, VN				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2151815	AA	19940707	CA 1993-2151815	19931206
	CA 2151913	AA	19940707	CA 1993-2151913	19931206
	AU 9457400	A1	19940719	AU 1994-57400	19931206
	EP 675706	A1	19951011	EP 1994-903459	19931206
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	HU 72041	A2	19960328	HU 1995-1784	19931206
	BR 9307688	A	19990908	BR 1993-7688	19931206
	CN 1095263	A	19941123	CN 1993-119922	19931218
PRAI	US 1992-993336		19921218		
	US 1993-148776		19931116		
	WO 1993-US11787		19931206		
AB	This invention involves a compn. for treating or preventing dental plaque, calculus and gingivitis, or malodor of the oral cavity, comprising: (a) (i) a source of a safe and effective amt. of zinc ions; (ii) a source of citrate ions; and (iii) one or more anticalculus agents selected from the group consisting of pyrophosphate, phosphonate, diphosphonate and pharmaceutically-acceptable linear condensed polyphosphates of the general formula: $[PnO(3n+1)](n+2)-$ , $n = 2-21$ ; the molar ratio of zinc to citrate or pyrophosphate is at most about 1:1; and (b) a pharmaceutically-acceptable topical oral carrier.				
ST	mouthwash antiplaque anticalculus citrate phosphorus zinc				
IT	Humectants (antiplaque and anticalculus mouthwash compns. contg.)				
IT	Mouthwashes (anticalculus, zinc and phosphorus-contg. compds. for)				
IT	Mouthwashes (antiplaque, zinc and phosphorus-contg. compds. for)				
IT	Surfactants (nonionic, antiplaque and anticalculus mouthwash compns. contg.)				
IT	64-17-5, Ethanol, biological studies 77-92-9, Citric acid, biological studies 151-21-3, Sodium lauryl sulfate, biological studies 994-36-5, Sodium citrate 1314-13-2, Zinc oxide, biological studies 2809-21-4, EHDP 7320-34-5, Tetrapotassium pyrophosphate 7440-66-6D, Zinc, salts 7646-85-7, Zinc chloride ( $ZnCl_2$ ), biological studies 7681-49-4, Sodium fluoride, biological studies 7722-88-5, Tetrasodium pyrophosphate				

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7723-14-0D, Phosphorus, compds. 7733-02-0, Zinc sulfate 7758-16-9,  
Sodium acid pyrophosphate 7758-29-4, Sodium tripolyphosphate  
7779-88-6, Zinc nitrate 29444-63-1D, Hexaphosphoric acid, salts  
56269-44-4, Azacycloheptane-2,2-diphosphonic acid 157171-69-2D, salts  
RL: BIOL (Biological study)

(antiplaque and anticalculus mouthwash compns. contg.)

L45 ANSWER 15 OF 25 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 10  
AN 1994:541281 HCAPLUS  
DN 121:141281  
TI Oral compositions with phosphorus-containing antiplaque and anticalculus  
agents  
IN **Montgomery, Ronald Earl**; Maddux, Angela Marie; Volpenhein,  
Matthew Edward; Shanbhag, Vrinda Ramchandra  
PA Procter and Gamble Co., USA  
SO PCT Int. Appl., 23 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
IC ICM A61K007-16  
ICS A61K033-42; A61K033-30  
CC 62-7 (Essential Oils and Cosmetics)  
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9414406	A1	19940707	WO 1993-US11786	19931206
	W: AU, BB, BG, BR, BY, CA, CZ, FI, HU, JP, KP, KR, KZ, LK, LV, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, UZ, VN				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2151815	AA	19940707	CA 1993-2151815	19931206
	AU 9457399	A1	19940719	AU 1994-57399	19931206
	EP 675705	A1	19951011	EP 1994-903458	19931206
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	HU 72042	A2	19960328	HU 1995-1778	19931206
	JP 08504816	T2	19960528	JP 1993-515184	19931206
	BR 9307689	A	19990831	BR 1993-7689	19931206
	CN 1095262	A	19941123	CN 1993-119916	19931218
PRAI	US 1992-993336		19921218		
	US 1993-148775		19931116		
	WO 1993-US11786		19931206		

AB This invention involves oral-care compns., comprising: (a) zinc oxide or  
nitrate; a source of citrate ions; and one or more phosphorus-contg.  
anticalculus agents selected from the group consisting of pyrophosphate,  
phosphonate, diphosphonate and pharmaceutically-acceptable linear  
condensed polyphosphates of the general formula:  $[PnO(3n+1)](n+2)-$ ,  $n =$   
2-21; the molar ratio of the zinc ions to citrate ions or  
phosphorus-contg. anticalculus agent is 1:1-1:20; and (b) a  
pharmaceutically-acceptable topical oral carrier. This invention also  
involves methods for treating or preventing **dental** plaque,  
calculus, gingivitis, or malodor of the oral cavity comprising  
administering to the oral cavity of a human or other animal a safe and  
effective amt. of such compns.

ST mouthwash antiplaque anticalculus citrate zinc phosphorus  
IT Humectants

(antiplaque and anticalculus mouthwash compns. contg.)

IT Mouthwashes

(anticalculus, phosphorus and zinc-contg. compds. for)

IT Mouthwashes

(antiplaque, phosphorus and zinc-contg. compds. for)

IT Surfactants

(nonionic, antiplaque and anticalculus mouthwash compns. contg.)

IT 64-17-5, Ethanol, biological studies 77-92-9, Citric acid, biological  
studies 151-21-3, Sodium lauryl sulfate, biological studies 994-36-5,

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Sodium citrate 1314-13-2, Zinc oxide, biological studies 2809-21-4, EHDP 7320-34-5, Tetrapotassium pyrophosphate 7440-66-6D, Zinc, salts 7681-49-4, Sodium fluoride, biological studies 7722-88-5, Tetrasodium pyrophosphate 7723-14-0D, Phosphorus, compds. 7758-16-9, Sodium acid pyrophosphate 7758-29-4, Sodium tripolyphosphate 7779-88-6, Zinc nitrate 29444-63-1D, Hexaphosphoric acid, salts 56269-44-4, Azacycloheptane-2,2-diphosphonic acid 157171-69-2D, salts

RL: BIOL (Biological study)

(antiplaque and anticalculus mouthwash compns. contg.)

L45 ANSWER 16 OF 25 HCAPLUS COPYRIGHT 2001 ACS  
AN 1994:279904 HCAPLUS  
DN 120:279904  
TI Stabilized chewable antimicrobial foodstuff for animal  
IN **Montgomery, Robert E.**  
PA USA  
SO PCT Int. Appl., 30 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
IC ICM A61K007-28  
ICS A61K037-50  
CC 62-7 (Essential Oils and Cosmetics)  
Section cross-reference(s): 18

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9405252	A1	19940317	WO 1993-US8086	19930827
	W: AU, CA				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5310541	A	19940510	US 1992-936929	19920827
	EP 658096	A1	19950621	EP 1993-921221	19930827
	EP 658096	B1	19991103		
	R: DE, ES, FR, GB, IT, NL				
	ES 2141171	T3	20000316	ES 1993-921221	19930827
PRAI	US 1992-936929		19920827		
	WO 1993-US8086		19930827		

AB The invention is an animal chew which contains one or more enzymes and substrates for the purpose of generating antimicrobial compds. upon contact with an animal's saliva. The animal chew, made of rawhide, biscuit or dried animal food is provided with an oxidoreductase enzyme and substrate, such as glucose oxidase and glucose, which produces H<sub>2</sub>O<sub>2</sub> upon being chewed. A catalase may be provided to stabilize the system and prevent premature activation of the enzyme/substrate system. A peroxidase and halide or pseudohalide ion combination may be provided to enhance the antimicrobial effect of the invention.

ST chewable antimicrobial animal **dentifrice** enzyme peroxide

IT Chlorides, biological studies

Halides

Iodides, biological studies

Pseudohalides

RL: BIOL (Biological study)

(antimicrobial animal chewing foodstuff contg. oxidoreductase and peroxidase and, for inhibiting oral pathogens)

IT **Dentifrices**

(bactericidal, chewable, for animal, oxidoreductase and enzyme substrate in)

IT Hide substances

(raw-, antimicrobial animal chewing foodstuff contg. oxidoreductase and peroxidase and enzyme substrates and, for inhibiting oral pathogens)

IT Bakery products

(biscuits, for animal, antimicrobial animal chewing foodstuff contg. oxidoreductase and peroxidase and enzyme substrates and, for inhibiting oral pathogens)

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- IT Food  
(dry, for animal, antimicrobial animal chewing foodstuff contg. oxidoreductase and peroxidase and enzyme substrates and, for inhibiting oral pathogens)
- IT 9003-99-0, Lactoperoxidase 9055-20-3, Chloroperoxidase  
RL: BIOL (Biological study)  
(antimicrobial animal chewing foodstuff contg. oxidoreductase and enzyme substrates and, for inhibiting oral pathogens)
- IT 333-20-0, Potassium thiocyanate 540-72-7, Sodium thiocyanate 1762-95-4, Ammonium thiocyanate 7647-14-5, Sodium chloride, biological studies 7681-11-0, Potassium iodide, biological studies  
RL: BIOL (Biological study)  
(antimicrobial animal chewing foodstuff contg. oxidoreductase and peroxidase and, for inhibiting oral pathogens)
- IT 50-99-7, D-Glucose, biological studies 51-67-2, Tyramine 59-23-4, d-Galactose, biological studies 64-17-5, Ethanol, biological studies 69-89-6, Xanthine 75-07-0, Acetaldehyde, biological studies 79-14-1, Glycolic acid, biological studies 79-33-4, L-Lactic acid, biological studies 87-79-6, L-Sorbose 95-55-6, 2-Aminophenol 110-60-1, 1,4-Diaminobutane 123-72-8, Butyraldehyde 154-17-6, 2-Deoxy-D-glucose 1783-96-6, D-Aspartic acid 6893-26-1, D-Glutamic acid 10516-09-3 13748-90-8, L-2-Hydroxyisocaproic acid 14474-04-5 22956-40-7 32746-79-5 106623-56-7  
RL: BIOL (Biological study)  
(antimicrobial animal chewing foodstuff contg. oxidoreductase and, for inhibiting oral pathogens)
- IT 9000-88-8, D-Amino acid oxidase 9000-89-9, L-Amino acid oxidase 9001-37-0, Glucose oxidase 9001-53-0, Diamine oxidase 9001-66-5, Monoamine oxidase 9028-71-1, Glycollate oxidase 9028-72-2, Lactate oxidase 9028-78-8 9028-79-9, Galactose oxidase 9029-21-4, Pyridoxaminephosphate oxidase 9029-38-3, Sulfite oxidase  
RL: BIOL (Biological study)  
(antimicrobial animal chewing foodstuff contg., for inhibiting oral pathogens)

L45 ANSWER 17 OF 25 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 11

AN 1993:154193 HCAPLUS

DN 118:154193

TI Antimicrobial **dentifrice** comprising oxidoreductase

IN **Montgomery, Robert E.**

PA USA

SO U.S., 9 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM A61K007-16

ICS A61K007-28

NCL 424050000

CC 62-7 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5176899	A	19930105	US 1991-797776	19911125
	US 5270033	A	19931214	US 1992-931684	19920818
	US 5262151	A	19931116	US 1992-934772	19920824
	WO 9310752	A1	19930610	WO 1992-US10137	19921125
	W: AU, BR, CA, JP, KR, RU				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9331471	A1	19930628	AU 1993-31471	19921125
	AU 679169	B2	19970626		
	EP 614352	A1	19940914	EP 1992-925399	19921125
	R: AT, BE, CH, DE, DK, ES, FR, GB, IE, IT, LI, NL, SE				
	JP 07503707	T2	19950420	JP 1992-510216	19921125
	CA 2124336	C	19981117	CA 1992-2124336	19921125

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WO 9404127            A1    19940303            WO 1993-US7955    19930824  
     W: AU, CA, FI, JP, KR, NO, NZ  
     RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  
 EP 746303            A1    19961211            EP 1993-920301    19930824  
     R: BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE

PRAI US 1991-797776            19911125  
 US 1992-934772            19920824  
 WO 1992-US10137            19921125  
 WO 1993-US7955            19930824

AB **Dentifrices** comprise oxidoreductase and a substrate for H2O2 generation by this enzyme. The O content is limited, by manufg., storing, and packaging the **dentifrice** in the absence of O. The **dentifrice** optionally contains a peroxidase, which acts upon H2O2 in order to oxidize salivary SCN- into antimicrobial OSCN-. A **dentifrice** was made of sorbitol (70% 25.000, glycerol 22.800, water 17.521, CMC 7MXF 1.200, glucose 2.000, K3PO4 0.177, K2HPO4 0.254, K benzoate 0.100, Syldent-756 10.000, Syldent-750 10.000, Syldent-2 10.000, TiO2 0.500, Pluronic P75 0.4000, and glucose oxidase (5000 U/mL) 0.048 % by wt.

ST **dentifrice** microbicidal oxidoreductase; peroxidase microbicidal **dentifrice**

IT Amino acids, biological studies  
 RL: BIOL (Biological study)  
     (**dentifrice** contg. oxidoreductase and, microbicidal)

IT Thiocyanates  
 RL: BIOL (Biological study)  
     (**dentifrice** contg. peroxidase and, microbicidal)

IT **Dentifrices**  
     (microbicidal, oxidoreductase-contg.)

IT 50-99-7, D-Glucose, biological studies    51-67-2, Tyramine    59-23-4, D-Galactose, biological studies    64-17-5, Ethanol, biological studies    69-89-6, Xanthine    75-07-0, Acetaldehyde, biological studies    79-14-1, biological studies    79-33-4, biological studies    87-79-6, L-Sorbose    95-55-6, 2-Aminophenol    110-60-1, 1,4-Diaminobutane    123-72-8, Butyraldehyde    154-17-6, 2-Deoxy-D-glucose    1783-96-6, D-Aspartic acid    6893-26-1, D-Glutamic acid    10516-09-3    13748-90-8    14474-04-5    22956-40-7    28060-84-6    28905-12-6, .beta.-D-Glucose    65209-08-7  
 RL: BIOL (Biological study)  
     (**dentifrice** contg. oxidoreductase and, microbicidal)

IT 333-20-0, Potassium thiocyanate    540-72-7, Sodium thiocyanate    1762-95-4, Ammonium thiocyanate  
 RL: BIOL (Biological study)  
     (**dentifrice** contg. peroxidase and, microbicidal)

IT 9003-99-0, Myeloperoxidase    9055-20-3, Chloroperoxidase  
 RL: BIOL (Biological study)  
     (**dentifrice** contg., microbicidal)

IT 9000-88-8, D-Amino acid oxidase    9000-89-9, L-Amino acid oxidase    9001-37-0, Glucose oxidase    9001-53-0, Diamine oxidase    9001-66-5, Monoamine oxidase    9002-17-9, Xanthine oxidase    9028-71-1, Glycolate oxidase    9028-72-2, Lactate oxidase    9028-78-8    9028-79-9, Galactose oxidase    9029-07-6, Aldehyde oxidase    9029-20-3, D-Aspartate oxidase    9029-21-4, Pyridoxamine phosphate oxidase    9037-63-2, L-2-Hydroxyacid oxidase    9055-15-6, Oxidoreductase    62079-39-4, Sulfide oxidase  
 RL: BIOL (Biological study)  
     (**dentifrices** contg., microbicidal)

L45 ANSWER 18 OF 25    WPIDS COPYRIGHT 2001    DERWENT INFORMATION LTD  
 AN 1993-404878 [50]    WPIDS  
 CR 1993-035683 [04];    1993-377383 [47]  
 DNC C1993-179873  
 TI Antimicrobial compsn. prodn. - includes adding oxido-reductase substrate for forming hydrogen peroxide to oxido-reductase carrier and limiting amt. of oxygen in antimicrobial compsn..  
 DC A96 B04 D13 D16 D21 D22

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IN MONTGOMERY, R E  
PA (MONT-I) MONTGOMERY R E  
CYC 1  
PI US 5270033 A 19931214 (199350)\* 9p A61K007-28  
ADT US 5270033 A Cont of US 1991-797776 19911125, US 1992-931684 19920818  
FDT US 5270033 A Cont of US 5176899  
PRAI US 1991-797776 19911125; US 1992-931684 19920818  
IC ICM A61K007-28  
ICS A61K037-50  
AB US 5270033 A UPAB: 19940203  
Method for making an antimicrobial compsn. comprises adding an oxidoreductase enzyme (I) and an oxidoreductase enzyme substrate (II) to a biologically acceptable carrier in a mixing chamber which is evacuated or filled with an inert gas to limit the O2 concn. in the compsn. to less than 3.2 ppm.  
(I) and (II) are present in amts. such that they react together to form H2O2 at a rate of 0.1-10 mM/min.. Also claimed is a compsn. with an enzyme-based antimicrobial system made by the above process, except that the H2O2 formation rate is at least 0.1 mM/min..  
USE - The method is esp. useful for making dental treatment compsns., topical or ophthalmic antimicrobial compsns., and cosmetic, food and pharmaceutical processing additives.  
Dwg.0/0  
FS CPI  
FA AB; DCN  
MC CPI: A12-W11L; B04-B02C2; B07-A02; B12-A01; D03-H02E; D05-C03B; D08-B11

L45 ANSWER 19 OF 25 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD  
AN 1993-377383 [47] WPIDS  
CR 1993-035683 [04]; 1993-404878 [50]  
DNC C1993-167572  
TI Antimicrobial, esp. dentifrice compsns. - which are capable of activating or supplementing naturally occurring peroxidase systems.  
DC A96 D16 D21  
IN MONTGOMERY, R E  
PA (MONT-I) MONTGOMERY R E  
CYC 25  
PI US 5262151 A 19931116 (199347)\* 8p A61K007-28  
WO 9404127 A1 19940303 (199410) EN 29p A61K007-28  
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE  
W: AU CA FI JP KR NO NZ  
AU 9350891 A 19940315 (199428) A61K007-28  
EP 746303 A1 19961211 (199703) EN A61K007-28  
R: BE CH DE DK ES FR GB IT LI NL SE  
EP 746303 A4 19970101 (199841) A61K007-28  
ADT US 5262151 A CIP of US 1991-797776 19911125, US 1992-934772 19920824; WO 9404127 A1 WO 1993-US7955 19930824; AU 9350891 A AU 1993-50891 19930824; EP 746303 A1 EP 1993-920301 19930824, WO 1993-US7955 19930824; EP 746303 A4 EP 1993-920301  
FDT US 5262151 A CIP of US 5176899; AU 9350891 A Based on WO 9404127; EP 746303 A1 Based on WO 9404127  
PRAI US 1992-934772 19920824; US 1992-934772 19920824  
REP US 3946108; US 4139665; US 4269822; US 4537764; US 4564519; US 4842846; US 4996062; US 5144788; US 5176899; US 5217050; EP 277383; US 4578265  
IC ICM A61K007-28  
ICS A61K037-50  
AB US 5262151 A UPAB: 19940203  
An anaerobically packaged compsn.(I) with an antimicrobial system comprises, (a) a fluid carrier comprising an oxidoreductive enzyme when reacted together, in the presence of O2. The H2O2 is formed at a rate of upto 100 micron moles/l/min., and (b) catalise in an amt. to reduce the amt. of H2O2 in the compsn.. The compsn. is packaged in an O2 impervious package and container.

Also claimed is an antimicrobial dentifrice compsn.

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comprising the above compsn..

USE/ADVANTAGE - The compsn. are capable of activating or supplementing naturally occurring peroxidase system, especially they are stable during preparation and after packing in environments which contain O<sub>2</sub>. The aq. detifrice compsns. are stabilised against premature enzyme/substrate interacter by controlling the level of dissolved oxygen in the carrier. Opt. a peroxide enzyme may be included to act on the H<sub>2</sub>O<sub>2</sub>.

Dwg.0/0

FS CPI  
FA AB  
MC CPI: A12-V04B; D05-A01A4; D05-A01B1; D08-B08

L45 ANSWER 20 OF 25 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1992-131191 [16] WPIDS

DNN N1992-097874

TI Insert **teeth** for material breaker machine - has insert **tooth**, mounted reversibly onto insert holder, with pair of edges either of which serves as cutting edge.

DC P41

IN MONTGOMERY, R C

PA (MONT-N) MONTGOMERY IND INT

CYC 1

PI US 5100070 A 19920331 (199216)\* 6p

ADT US 5100070 A US 1990-542060 19900622

PRAI US 1990-542060 19900622

IC B02C018-18

AB US 5100070 A UPAB: 19931006

The insert **tooth** assembly includes an insert **tooth** member having a pair of edges, either of which may serve as a cutting edge. An insert **tooth** holder is provided for mounting of the insert **tooth**.

The insert **tooth** and insert holder interengage through a raised portion on the one and a recessed portion on the other which mate to form a positive mechanical lock.

The insert **tooth** is reversibly mounted in the insert holder to allow either of the pair of edges to assume the position of the cutting edge. The location of the interengaged components allows them to be fully protected from the material being cut thus minimising wear and damage. The insert **tooth** is inclined at an angle w.r.t. the insert holder, thus providing relief against back-up of material being processed and allowing the material to feed more quickly.

USE - For a material breaker machine intended for use in reducing chunks or pieces of wood, metal and other materials to small size. (1/6)

FS GMPI  
FA AB; GI

L45 ANSWER 21 OF 25 HCAPLUS COPYRIGHT 2001 ACS

AN 1986:213034 HCAPLUS

DN 104:213034

TI Di-enzymatic chewable **dentifrice**

IN Pellico, Michael A.; Montgomery, Robert E.

PA Laclede Professional Products, Inc., USA

SO U.S., 7 pp. Cont.-in-part of U.S. 4,537,764.

CODEN: USXXAM

DT Patent

LA English

IC ICM A61K009-68

ICS A61K007-28; A61K037-50

NCL 424048000

CC 62-7 (Essential Oils and Cosmetics)

FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----				

KATHLEEN FULLER EIC1700 308-4290

PI US 4564519 A 19860114 US 1983-559474 19831208  
 US 4578265 A 19860325 US 1981-292633 19810813  
 US 4537764 A 19850827 US 1983-501383 19830606  
 EP 133736 A2 19850306 EP 1984-302162 19840329  
 EP 133736 A3 19860205  
 EP 133736 B1 19891213  
 R: CH, DE, FR, GB, IT, LI, NL  
 JP 59231011 A2 19841225 JP 1984-105635 19840523  
 JP 04025924 B4 19920506  
 PRAI US 1981-292633 19810813  
 US 1983-501383 19830606  
 US 1983-559474 19831208  
 AB A chewable **dentifrice** having antibacterial activity contains an oxidizable substrate 0.015-0.6 mmol, an oxidoreductase 0.5-500 IU (for H<sub>2</sub>O<sub>2</sub> formation on chewing), a thiocyanate salt 0.001-0.01 mmol, and lactoperoxidase 0.01-50 IU such that the lactoperoxidase is present .gtoreq.2% (IU) of the oxidoreductase. The lactoperoxidase is present to form an antibacterial hypothiocyanate from the H<sub>2</sub>O<sub>2</sub> and thiocyanate. Thus, a compn. contg. cryst. sorbitol 75, gum base 23, color 0.5, flavor 1.0, .beta.-D-glucose 0.5, K thiocyanate 0.01, glucose oxidase (100,000 IU/g) 0.006, and lactoperoxidase (100,000 IU/g) 0.0006 g was made into 3 g sticks. When chewed, this compn. had 96-99% effectiveness as a bacterial inhibitor.  
 ST enzyme **dentifrice** chewable antiseptic; gum chewing **dentifrice** enzyme; oxidoreductase lactoperoxidase chewable **dentifrice**; hypothiocyanate **dentifrice**  
 IT Thiocyanates  
 RL: BIOL (Biological study)  
 (dentifrice contg. lactoperoxidase and in-situ generated hydrogen peroxide and, bactericidal chewable)  
 IT **Dentifrices**  
 (chewing gums, bactericidal, contg. enzymes for hypothiocyanate in-situ generation)  
 IT Amino acids, biological studies  
 RL: BIOL (Biological study)  
 (D-, **dentifrice** contg. D-amino acid oxidase and, bactericidal chewable)  
 IT 62-49-7  
 RL: BIOL (Biological study)  
 (dentifrice contg. choline oxidase and, bactericidal chewable)  
 IT 59-23-4, biological studies  
 RL: BIOL (Biological study)  
 (dentifrice contg. galactose oxidase and, bactericidal chewable)  
 IT 492-61-5  
 RL: BIOL (Biological study)  
 (dentifrice contg. glucose oxidase and, bactericidal chewable)  
 IT 56-40-6, biological studies  
 RL: BIOL (Biological study)  
 (dentifrice contg. glycine oxidase and, bactericidal chewable)  
 IT 333-20-0 540-72-7 1762-95-4  
 RL: BIOL (Biological study)  
 (dentifrice contg. lactoperoxidase and in-situ generated hydrogen peroxide and, bactericidal chewable)  
 IT 9000-88-8 9001-37-0 9002-12-4 9028-67-5 9028-79-9 37255-41-7  
 39307-16-9  
 RL: BIOL (Biological study)  
 (dentifrice contg. lactoperoxidase and, bactericidal chewable)  
 IT 3416-24-8 7512-17-6  
 RL: BIOL (Biological study)

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(**dentifrice** contg. oxidoreductase and lactoperoxidase and, bactericidal chewable)  
 IT 134-03-2 15421-15-5 64296-33-9  
 RL: BIOL (Biological study)  
 (**dentifrice** contg. oxidoreductase and, as catalase inhibitor)  
 IT 9003-99-0  
 RL: BIOL (Biological study)  
 (**dentifrice** contg. thiocyanate and in-situ generated hydrogen peroxide and, bactericidal chewable)  
 IT 69-93-2, uses and miscellaneous  
 RL: USES (Uses)  
 (**dentifrice** contg. urate oxidase and, bactericidal chewable)  
 IT 319-78-8 338-69-2 344-25-2 348-67-4 640-68-6 673-06-3  
 RL: BIOL (Biological study)  
 (**dentifrice** contg. D-amino acid oxidase and, bactericidal chewable)  
 IT 6893-26-1  
 RL: BIOL (Biological study)  
 (**dentifrice** contg. D-glutamate oxidase and, bactericidal chewable)  
 IT 7722-84-1P, preparation  
 RL: FORM (Formation, nonpreparative); PREP (Preparation)  
 (formation of, in-situ, in **dentifrice** contg. thiocyanate and lactoperoxidase)

L45 ANSWER 22 OF 25 HCAPLUS COPYRIGHT 2001 ACS

AN 1986:39537 HCAPLUS

DN 104:39537

TI Stabilized enzymic **dentifrice** containing .beta.-D-glucose and glucose oxidase

IN Pellico, Michael A.; Montgomery, Robert E.

PA Laclede Professional Products, Inc., USA

SO U.S., 6 pp. Cont.-in-part of U.S. Ser. No. 292,633, abandoned.

CODEN: USXXAM

DT Patent

LA English

IC ICM A61K007-28

ICS A61K037-48; A61K037-50

NCL 424050000

CC 62-7 (Essential Oils and Cosmetics)

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4537764	A	19850827	US 1983-501383	19830606
	US 4578265	A	19860325	US 1981-292633	19810813
	US 4564519	A	19860114	US 1983-559474	19831208
	EP 133736	A2	19850306	EP 1984-302162	19840329
	EP 133736	A3	19860205		
	EP 133736	B1	19891213		
	R: CH, DE, FR, GB, IT, LI, NL				
	JP 59231011	A2	19841225	JP 1984-105635	19840523
	JP 04025924	B4	19920506		
	JP 62213754	A2	19870919	JP 1986-58018	19860314
PRAI	US 1981-292633		19810813		
	US 1983-501383		19830606		
	US 1983-559474		19831208		

AB An enzymic **dentifrice** for producing H2O2 upon oral application, and limiting any water present in the **dentifrice** to no more than 10 wt.% of the **dentifrice** wt. to stabilize the **dentifrice** against prodn. of H2O2 prior to application, comprises .beta.-D-glucose at 0.015-0.6 mmol and glucose oxidase at 0.5-500 IU. Thus, a formulation contained glycerin (99%) 50, Co pyrophosphate 40, NaHCO3 5, color 0.5, flavor 0.5, .beta.-D-glucose (0.03 mmol) 0.5, glucose oxidase (100,000 IU/g) 0.1, Triton X-100 0.4, and H2O 3 g. The

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**dentifrice** has a 400% improvement in package stability compared to a com. formulation.

ST **dentifrice** antiseptic glucose glucose oxidase; enzymic  
**dentifrice** glucose

IT **Dentifrices**  
(enzymic, contg. glucose and glucose oxidase)

IT 9001-37-0  
RL: BIOL (Biological study)  
(**dentifrice** contg. glucose and)

IT 28905-12-6  
RL: BIOL (Biological study)  
(**dentifrice** contg. glucose oxidase and)

L45 ANSWER 23 OF 25 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1985-088321 [15] WPIDS

DNC C1985-038324

TI Di-enzymatic **dentifrice** producing hypo-thiocyanate bacterial inhibitor - comprises oxidisable substrate, oxido reductase enzyme, thiocyanate salt and lacto peroxidase.

DC B04 B05 D21

IN MONTGOMERY, R E; PELLICO, M A

PA (LACL-N) LACLEDE PROFESSIONAL PROD

CYC 9

PI EP 133736 A 19850306 (198515)\* EN 35p

R: CH DE FR GB IT LI NL

JP 59231011 A 19841225 (198506)

US 4537764 A 19850827 (198537)

US 4564519 A 19860114 (198605)

EP 133736 B 19891213 (198950) EN

R: CH DE FR GB IT LI NL

DE 3480691 G 19900118 (199004)

JP 04025924 B 19920506 (199222) 14p A61K007-28

ADT EP 133736 A EP 1984-302162 19840329; US 4537764 A US 1983-501383 19830606;  
US 4564519 A US 1983-559474 19831208; JP 04025924 B JP 1984-105635  
19840523

FDT JP 04025924 B Based on JP 59231011

PRAI US 1981-292633 19810813; US 1983-501383 19830606; US 1983-559474  
19831208

REP 1.Jnl.Ref; A3...8606; No-SR.Pub; US 4150113

IC ICM A61K007-28

ICS A61K009-68; A61K037-48

AB EP 133736 A UPAB: 19930925

Di-enzymatic **dentifrice** comprises, per g, 0.015-0.6 millimole of oxidisable substrate (OS) and 0.5-500 international units of oxidoreductase (OR) enzyme specific to OS, with 0.0001-0.01 millimole thiocyanate salt (TS) and 0.01-50 IU lactoperoxidase (LP) in amt. at least 2% (inIU) of amt. of OR.

H2O2 is produced by the action of OR on OS, and intracts with TS and LP to produce a hypthiocyanate bacterial inhibitor.

USE/ADVANTAGE - The **dentifrice** may be e.g. a powder, paste, cream, liq. chewing gum, chewable tablet, lozenge or floss, and does not depend on the naturally occurring, oral concn. of glucose, potassium thiocyanate or lactoperoxidase for antibacterial effectiveness

O/O

FS CPI

FA AB

MC CPI: B04-A06; B04-B02C2; B05-C03; B07-D03; B10-A07; B10-A22; B10-B02J;  
B10-B04B; B12-A01; B12-L03; D08-B08

L45 ANSWER 24 OF 25 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 12

AN 1984:536819 HCAPLUS

DN 101:136819

TI Dienzymic **dentifrice**

IN Pellico, Michael A.; Montgomery, Robert E.

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PA Laclede Professional Products, Inc., USA  
 SO Can., 26 pp.  
 CODEN: CAXXA4  
 DT Patent  
 LA English  
 IC A61K007-28  
 CC 62-7 (Essential Oils and Cosmetics)  
 FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CA 1167381	A1	19840515	CA 1981-392173	19811214
	US 4578265	A	19860325	US 1981-292633	19810813
	JP 62213754	A2	19870919	JP 1986-58018	19860314
PRAI	US 1981-292633		19810813		

AB A dienzymic **dentifrice** compn. contains 0.015-0.6 mmol oxidizable substrate such as .beta.-D-glucose [492-61-5] and 0.5-500 IU of an oxidoreductase enzyme specific to each substrate for H2O2 prodn. on oral application of the **dentifrice**. In addn., the compn. contains 0.0001-0.01 mmol of a thiocyanate salt and 0.05-20 IU lactoperoxidase [9003-99-0] for interaction with H2O2 to produce a hypothiocyanate bacterial inhibitor. Thus, a **toothpaste** was prepd. contg. glycerin 48, propylene glycol 5, NaHCO3 1.9, Silcron G-910 35, water 2, dioctyl Na sulfosuccinate 2, glucose oxidase [9001-37-0] 0.125 (12,500 IU), .beta.-D-glucose 5, lactoperoxidase (100,000 IU/g) 0.0001, KCNS 0.01, color 0.5 and flavor 0.5 g. The effectiveness of the **dentifrice** was demonstrated in humans.

ST enzymic **dentifrice**; oxidizable enzyme substrate  
**dentifrice**; thiocyanate enzyme **dentifrice**  
 IT Enzymes  
 RL: BIOL (Biological study)  
 (dentifrices contg. oxidizable substrates and)

IT **Dentifrices**  
 (enzymes and oxidizable substrates for)

IT Amino acids, biological studies  
 RL: BIOL (Biological study)

(D-, dienzymic **dentifrices** contg.)  
 IT 338-69-2 344-25-2 348-67-4 492-61-5 640-68-6 673-06-3  
 6893-26-1 56-40-6, uses and miscellaneous 59-23-4, biological studies  
 62-49-7 69-93-2, biological studies 319-78-8  
 RL: BIOL (Biological study)

(dientzymic **dentifrices** contg.)  
 IT 333-20-0 540-72-7 1762-95-4 3416-24-8 7512-17-6 9001-37-0  
 9002-12-4 9003-99-0 9028-67-5 9028-79-9 37255-41-7 39307-16-9  
 RL: BIOL (Biological study)  
 (dientzymic **dentifrices** contg. oxidizable substrates and)

L45 ANSWER 25 OF 25 HCAPLUS COPYRIGHT 2001 ACS DUPLICATE 13  
 AN 1981:449446 HCAPLUS  
 DN 95:49446  
 TI Antiseptic **dentifrice**  
 IN Pellico, Michael A.; Montgomery, Robert E.  
 PA Laclede Professional Products, Inc., USA  
 SO U.S., 5 pp. Cont.-in-part of U.S. Ser. No. 59,243, abandoned.  
 CODEN: USXXAM

DT Patent  
 LA English  
 IC A61K007-22; A61K007-28; A61K037-50; A61K031-195  
 NCL 424050000  
 CC 63-6 (Pharmaceuticals)  
 Section cross-reference(s): 62

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4269822	A	19810526	US 1980-182384	19800829
				KATHLEEN FULLER EIC1700 308-4290	

PRAI US 1979-59243 19790720  
AB An antiseptic **dentifrice** contains 0.01-0.5 wt. % oxidizable amino acid substrate and 50-1000 IU oxidoreductase enzyme specific to the substrate which produces NH3 and H2O2 upon oral application of the **dentifrice**. Nonaq. fluid carriers and limited H2O content protect against NH3 and H2O2 prodn. prior to application. An antiseptic **toothpaste** was prepd. contg. glycerol [56-81-5] 500, Ca pyrophosphate 400, H2O 25, NaHCO3 50, Super-Pro 20, glycine [56-40-6] 0.5 g, glycine oxidase [39307-16-9] 5000 IU, coloring agent 51, flavoring agent 5 g.  
ST **dentifrice** antiseptic; amino acid oxidase **dentifrice**  
IT Amino acids, biological studies  
RL: BIOL (Biological study)  
(antiseptic **dentifrices** contg. oxidoreductase enzyme and)  
IT **Dentifrices**  
(antiseptic, amino acids and oxidoreductase enzyme in)  
IT Enzymes  
RL: BIOL (Biological study)  
(oxidoreductase, antiseptic **dentifrices** contg. amino acids and)  
IT 56-40-6, biological studies 60-18-4, biological studies 61-90-5, biological studies 63-68-3, biological studies 63-91-2, biological studies 71-00-1, biological studies 73-22-3, biological studies 73-32-5, biological studies 319-78-8 327-57-1 338-69-2 344-25-2 348-67-4 372-75-8 640-68-6 673-06-3 1492-24-6 6600-40-4  
RL: BIOL (Biological study)  
(antiseptic **dentifrices** contg. amino acid oxidase and)  
IT 56-81-5, biological studies 57-55-6, biological studies  
RL: BIOL (Biological study)  
(antiseptic **dentifrices** contg. amino acids and oxidoreductase enzymes and)  
IT 39307-16-9  
RL: BIOL (Biological study)  
(antiseptic **dentifrices** contg. glycine and)  
IT 9000-88-8  
RL: BIOL (Biological study)  
(antiseptic **dentifrices** contg. D-amino acids and)  
IT 9000-89-9  
RL: BIOL (Biological study)  
(antiseptic **dentifrices** contg. L-amino acids and)

=> file reg

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DICTIONARY FILE UPDATES: 28 MAY 2001 HIGHEST RN 338729-10-5

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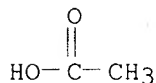
Structure search limits have been increased. See HELP SLIMIT for details.

=> d 149 1-3

RN 26446-35-5 REGISTRY  
 CN 1,2,3-Propanetriol, monoacetate (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Acetin, mono- (6CI, 7CI, 8CI)  
 OTHER NAMES:  
 CN Acetin  
 CN Acetoglyceride  
 CN Acetyl monoglyceride  
 CN Glycerin monoacetate  
 CN Glycerine monoacetate  
 CN Glycerol acetate  
 CN Glycerol monoacetate  
 CN **Glyceryl acetate**  
 CN Glyceryl monoacetate  
 CN Monoacetin  
 DR 1335-38-2  
 MF C5 H10 O4  
 CI IDS, COM  
 LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CSCHEM, DDFU, DETHERM\*, DRUGU, EMBASE, HSDB\*, IFICDB, IFIPAT, IFIUDB, IMSDIRECTORY, IPA, MEDLINE, MRCK\*, NIOSHTIC, PROMT, RTECS\*, TOXLINE, TOXLIT, TULSA, USPATFULL  
 (\*File contains numerically searchable property data)  
 Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)

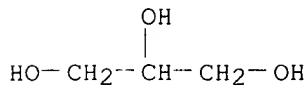
CM 1

CRN 64-19-7  
 CMF C2 H4 O2



CM 2

CRN 56-81-5  
 CMF C3 H8 O3



236 REFERENCES IN FILE CA (1967 TO DATE)  
 9 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 236 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 23 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

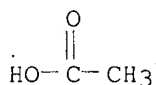
L49 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2001 ACS  
 RN 25395-31-7 REGISTRY  
 CN 1,2,3-Propanetriol, diacetate (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Acetin, di- (6CI, 7CI, 8CI)  
 OTHER NAMES:  
 CN Diacetin  
 CN Diacetylglycerol  
 CN Estol 1582  
 CN Estol 1583

KATHLEEN FULLER EIC1700 308-4290

CN Glycerin diacetate  
 CN Glycerine diacetate  
 CN Glycerol diacetate  
 CN **Glyceryl diacetate**  
 DR 1300-63-6, 29860-16-0  
 MF C7 H12 O5  
 CI IDS, COM  
 LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS,  
 CASREACT, CHEMCATS, CHEMLIST, CSCHEM, DDFU, DETHERM\*, DRUGU, EMBASE,  
 HODOC\*, IFICDB, IFIPAT, IFIUDB, IPA, MRCK\*, RTECS\*, SPECINFO, TOXLINE,  
 TOXLIT, USPATFULL  
 (\*File contains numerically searchable property data)  
 Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)

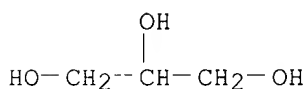
CM 1

CRN 64-19-7  
 CMF C2 H4 O2



CM 2

CRN 56-81-5  
 CMF C3 H8 O3

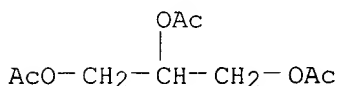


266 REFERENCES IN FILE CA (1967 TO DATE)  
 10 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 266 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 25 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L49 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2001 ACS  
 RN 102-76-1 REGISTRY  
 CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Acetin, tri- (6CI, 8CI)  
 OTHER NAMES:  
 CN 1,2,3-Triacetoxyp propane  
 CN Enzactin  
 CN Estol 1581  
 CN Fungacetin  
 CN Glycerin triacetate  
 CN Glycerol triacetate  
 CN **Glyceryl triacetate**  
 CN Glyped  
 CN Kesscoflex TRA  
 CN Priacetin 1580  
 CN Priacetin 1581  
 CN Triacetin  
 CN Triacetine  
 CN Triacetyl glycerin  
 CN Triacetyl glycerol

KATHLEEN FULLER EIC1700 308-4290

CN Ujostabil  
 CN Vanay  
 FS 3D CONCORD  
 MF C9 H14 O6  
 CI COM  
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS,  
 BIOTECHNO, CA, CABA, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,  
 CHEMLIST, CHEMSAFE, CIN, CSCHEM, DDFU, DETHERM\*, DIOGENES, DIPPR\*,  
 DRUGU, EMBASE, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE,  
 MRCK\*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM\*, PIRA, PROMT, RTECS\*,  
 SPECINFO, TOXLINE, TOXLIT, TULSA, USAN, USPATFULL, VTB  
 (\*File contains numerically searchable property data)  
 Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*, WHO  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)



1892 REFERENCES IN FILE CA (1967 TO DATE)  
 12 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 1895 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 104 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file hcaplus

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FILE COVERS 1947 - 29 May 2001 VOL 134 ISS 23  
 FILE LAST UPDATED: 28 May 2001 (20010528/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

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=> d que 167

L7 7 SEA FILE=REGISTRY ABB=ON HYDROGEN PEROXIDE/CN OR CARBAMIDE  
 PEROXIDE/CN OR SODIUM PERBORATE/CN OR SODIUM PERCARBONATE/CN  
 L12 140072 SEA FILE=HCAPLUS ABB=ON L7 OR HYDROGEN PEROXIDE OR H2O2 OR  
 CARBAMIDE PEROXIDE OR SODIUM PERBORATE OR SODIUM PERCARBONATE  
 L46 1 SEA FILE=REGISTRY ABB=ON "GLYCERYL TRIACETATE"/CN  
 L47 1 SEA FILE=REGISTRY ABB=ON "GLYCERYL DIACETATE"/CN  
 KATHLEEN FULLER EIC1700 308-4290

L48 1 SEA FILE=REGISTRY ABB=ON "GLYCERYL ACETATE"/CN  
 L49 3 SEA FILE=REGISTRY ABB=ON (L46 OR L47 OR L48)  
 L53 6 SEA FILE=REGISTRY ABB=ON CARBAMIDE PEROXIDE/CN OR SODIUM  
 PERCARBONATE/CN OR SODIUM PERBORATE/CN  
 L55 258 SEA FILE=REGISTRY ABB=ON 9003-39-8/CRN  
 L56 3 SEA FILE=REGISTRY ABB=ON L55 AND HYDROGEN PEROXIDE  
 L57 2189 SEA FILE=HCAPLUS ABB=ON L49 OR GLYCERYL(W)?ACETATE?  
 L58 3590 SEA FILE=HCAPLUS ABB=ON L53 OR L56  
 L60 45 SEA FILE=HCAPLUS ABB=ON L57 AND (L58 OR L12 OR (SODIUM OR  
 CALCIUM OR MAGNESIUM) (W) PEROXIDE)  
 L61 2 SEA FILE=HCAPLUS ABB=ON L60 AND (DENT? OR TOOTH? OR TEETH?)  
 L62 21 SEA FILE=HCAPLUS ABB=ON L60 AND (BLEACH? OR WHIT? OR STAIN?(3A  
 )REMOV?)  
 L63 51 SEA FILE=HCAPLUS ABB=ON L57 AND ?PEROX?  
 L64 18 SEA FILE=HCAPLUS ABB=ON L63 AND (BLEACH? OR WHIT? OR STAIN?(3A  
 )REMOV?)  
 L65 3 SEA FILE=HCAPLUS ABB=ON L63 AND (DENT? OR TOOTH? OR TEETH?)  
 L66 10 SEA FILE=HCAPLUS ABB=ON L63 AND PEROXY?(2W)ACID#  
 L67 28 SEA FILE=HCAPLUS ABB=ON L61 OR L62 OR L64 OR L65 OR L66

=> file wpids

FILE 'WPIDS' ENTERED AT 11:41:13 ON 29 MAY 2001  
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FILE LAST UPDATED: 28 MAY 2001 <20010528/UP>  
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 MOST RECENT DERWENT WEEK 200129 <200129/DW>  
 DERWENT WEEK FOR CHEMICAL CODING: 200129  
 DERWENT WEEK FOR POLYMER INDEXING: 200129  
 DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

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=> d que 168

L7 7 SEA FILE=REGISTRY ABB=ON HYDROGEN PEROXIDE/CN OR CARBAMIDE  
 PEROXIDE/CN OR SODIUM PERBORATE/CN OR SODIUM PERCARBONATE/CN  
 L12 140072 SEA FILE=HCAPLUS ABB=ON L7 OR HYDROGEN PEROXIDE OR H2O2 OR  
 CARBAMIDE PEROXIDE OR SODIUM PERBORATE OR SODIUM PERCARBONATE  
 L46 1 SEA FILE=REGISTRY ABB=ON "GLYCERYL TRIACETATE"/CN  
 L47 1 SEA FILE=REGISTRY ABB=ON "GLYCERYL DIACETATE"/CN  
 L48 1 SEA FILE=REGISTRY ABB=ON "GLYCERYL ACETATE"/CN  
 L49 3 SEA FILE=REGISTRY ABB=ON (L46 OR L47 OR L48)  
 L53 6 SEA FILE=REGISTRY ABB=ON CARBAMIDE PEROXIDE/CN OR SODIUM  
 PERCARBONATE/CN OR SODIUM PERBORATE/CN  
 L55 258 SEA FILE=REGISTRY ABB=ON 9003-39-8/CRN  
 L56 3 SEA FILE=REGISTRY ABB=ON L55 AND HYDROGEN PEROXIDE  
 L57 2189 SEA FILE=HCAPLUS ABB=ON L49 OR GLYCERYL(W)?ACETATE?  
 L58 3590 SEA FILE=HCAPLUS ABB=ON L53 OR L56  
 L60 45 SEA FILE=HCAPLUS ABB=ON L57 AND (L58 OR L12 OR (SODIUM OR  
 CALCIUM OR MAGNESIUM) (W) PEROXIDE)  
 L61 2 SEA FILE=HCAPLUS ABB=ON L60 AND (DENT? OR TOOTH? OR TEETH?)  
 L62 21 SEA FILE=HCAPLUS ABB=ON L60 AND (BLEACH? OR WHIT? OR STAIN?(3A  
 )REMOV?)

KATHLEEN FULLER EIC1700 308-4290

L63 51 SEA FILE=HCAPLUS ABB=ON L57 AND ?PEROX?  
 L64 18 SEA FILE=HCAPLUS ABB=ON L63 AND (BLEACH? OR WHIT? OR STAIN?(3A  
 )REMOV?)  
 L65 3 SEA FILE=HCAPLUS ABB=ON L63 AND (DENT? OR TOOTH? OR TEETH?)  
 L66 10 SEA FILE=HCAPLUS ABB=ON L63 AND PEROXY?(2W)ACID#  
 L68 2 SEA FILE=WPIDS ABB=ON L61 OR L62 OR L64 OR L65 OR L66

=> dupr rem 167 168

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FILE 'WPIDS' ENTERED AT 11:41:39 ON 29 MAY 2001  
 COPYRIGHT (C) 2001 DERWENT INFORMATION LTD  
 PROCESSING COMPLETED FOR L67  
 PROCESSING COMPLETED FOR L68  
 L69 29 DUP REM L67 L68 (1 DUPLICATE REMOVED)

=> d 169 all 1-29 hitstr

L69 ANSWER 1 OF 29 HCAPLUS COPYRIGHT 2001 ACS  
 AN 2001:320052 HCAPLUS  
 DN 134:312845  
 TI Compositions for treating shoes and methods and articles employing same  
 IN Baker, Keith Homer; Siklosi, Michael P.; Na, Henry Cheng; Strang, Janine  
 Morgens; Haeggberg, Donna Jean; Scheper, William Michael; Sheets, Connie  
 Lynn; Tollens, Fernando Ray; Murray, Michael Glen; Creedon, Michael  
 Timothy; Wahl, Errol Hoffman; Trinh, Toan; Sadlowski, Eugene Steven;  
 Becks, Vincent J.  
 PA Procter + Gamble Co., USA  
 SO PCT Int. Appl., 172 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM C11D003-37  
 ICS C11D001-72  
 CC 46-5 (Surface Active Agents and Detergents)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001030955	A1	20010503	WO 2000-US29236	20001020
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
PRAI	US 1999-161118	P	19991022		
	US 1999-161151	P	19991022		
	US 1999-161187	P	19991022		

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US 1999-161240 P 19991022  
 US 2000-198019 P 20000418  
 US 2000-198507 P 20000418  
 US 2000-202291 P 20000505

- AB The present invention relates to compns. for treating shoes, esp. leather-contg. shoes, such as athletic shoes, and methods and articles of manuf. employing same to treat the shoes prior to and/or during and/or after washing the shoes. More particularly, the present invention relates to compns. applied to one or more shoes in need of treatment prior to and/or during and/or after washing the shoes for imparting a desired benefit to the shoes such as cleaning and/or conditioning and/or disinfecting and/or deodorizing. A method for treating one or more shoes comprising contacting the one or more shoes directly or indirectly with one or more treating compns. according to any of the preceding claims. A method of imparting one or more desired benefits to a shoe comprising applying an effective amt. of one or more benefit agents provided by using the title treating compn. with or without a washing process. Thus, cleaning agent-contg. treating compn. can be formulated as follows : acrylic acid-maleic acid copolymer 26.2; nonionic surfactant 12.6, Tween 20 12.6, Na Citrate 1.7, NaOH 0.8, silicone suds suppresser 0.3, minors (dye, perfume, preservative) 2, fluorescent whitening agent 0.2, and water 43.5.
- ST shoe treating compn benefit cleaning conditioning disinfecting deodorizing waterproofing
- IT Polysiloxanes, uses  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (CM 2233; compns. and methods for treating shoes)
- IT Alcohols, uses  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (C12-13, ethoxylated, Neodol 23-6.5, Neodol 23-9, nonionic surfactant; compns. and methods for treating shoes)
- IT Fatty acids, uses  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (C8-10; compns. and methods for treating shoes)
- IT Brightening  
 (agents; compns. and methods for treating shoes)
- IT Polyoxalkylenes, uses  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (alkyl ether; compns. and methods for treating shoes)
- IT Quaternary ammonium compounds, uses  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (alkylbenzyl dimethyl, chlorides, disinfecting agent; compns. and methods for treating shoes)
- IT Surfactants  
 (amphiphilic; compns. and methods for treating shoes)
- IT Surfactants  
 (anionic; compns. and methods for treating shoes)
- IT Surfactants  
 (cationic; compns. and methods for treating shoes)
- IT Antibacterial agents  
 Antimicrobial agents  
 Deodorants  
 Detergents  
 Disinfectants  
 Fungicides  
 Leather  
 Leather substitutes  
 Perfumes  
 Shoes



- Thickening agents  
Waterproofing agents  
(compsn. and methods for treating shoes)
- IT Enzymes, uses  
Fluoropolymers, uses  
Lecithins  
Polyoxyalkylenes, uses  
Quaternary ammonium compounds, uses  
Waxes  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(compsn. and methods for treating shoes)
- IT Polyamides, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(compsn. and methods for treating shoes)
- IT Polysiloxanes, uses  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(di-Me, hydroxyalkyl Me, ethers with polyalkylene glycol  
mono-C1-3-alkyl ether, Silwet L 7500; compsn. and methods for treating  
shoes)
- IT Surfactants  
(nonionic; compsn. and methods for treating shoes)
- IT Canvas  
Sporting goods  
(shoes; compsn. and methods for treating shoes)
- IT Shoes  
(sport; compsn. and methods for treating shoes)
- IT Polyesters, uses  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(sucrose; compsn. and methods for treating shoes)
- IT Surfactants  
(zwitterionic; compsn. and methods for treating shoes)
- IT 335373-44-9, Na C25AE1.8S  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(Na C25AE1.8S; compsn. and methods for treating shoes)
- IT 335317-85-6  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(bleach activator; compsn. and methods for treating shoes)
- IT 56-81-5, Glycerin, uses 56-84-8D, Aspartic acid, esters, polymers  
57-50-1D, Sucrose, polyester 67-63-0, Isopropanol, uses 79-10-7D,  
Acrylic acid, esters, polymers 79-14-1D, Glycolic acid, esters, polymers  
91-64-5D, Coumarin, derivs. 98-11-3D, Benzenesulfonic acid, linear alkyl  
derivs., sodium salt 102-76-1, Triacetin 112-05-0, Nonanoic  
acid 139-44-6, Trihydroxystearin 334-48-5, Decanoic acid 497-19-8,  
Sodium carbonate, uses 994-36-5, Sodium Citrate 1300-72-7, Sodium  
xylene sulfonate 1310-73-2, Sodium Hydroxide, uses 7722-88-5, Sodium  
pyrophosphate 7757-82-6, Sodium sulfate, uses 7758-29-4, Sodium  
tripolyphosphate 9001-92-7, Protease 9003-04-7, Acusol 445N  
9004-32-4, Carboxymethyl cellulose 9005-64-5, Tween 20 9012-54-8,  
Cellulase 9016-00-6, Poly[oxy(dimethylsilylene)] 25322-68-3, PEG  
25322-68-3D, Polyethylene glycol, alkyl ether 31900-57-9,  
Dimethylsilanediol, homopolymer 60472-42-6, Sokalan CP 5 60650-94-4,  
Tinopal AMS-GX 178949-82-1  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(compsn. and methods for treating shoes)
- IT 335321-64-7, Lubritan AS 335372-63-9  
RL: PRP (Properties); TEM (Technical or engineered material use); USES  
(Uses)  
(conditioning agent; compsn. and methods for treating shoes)

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IT 7585-39-9, .beta.-Dextrin  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES  
 (Uses)  
 (deodorant; compns. and methods for treating shoes)

IT 55-56-1, Chlorohexidine 55-56-1D, Chlorohexidine, salt 121-54-0,  
 Benzethonium chloride 123-03-5, Cetylpyridinium chloride 4080-31-3,  
 N-(3-Chloroallyl) hexaminium chloride 4252-56-6 6248-28-8, Benzoyl  
 caprolactam 10543-57-4, Tetraacetyl ethylenediamine 14468-76-9,  
 4-Nitrobenzoylcaprolactam 25155-18-4, MethylBenzethonium chloride  
 32289-58-0, Polyhexamethylene Biguanide hydrochloride 101482-85-3D,  
 Nonanoyloxybenzenesulfonic acid, salt 101843-38-3D, Dodecanoic acid,  
 sulfophenyl ester, salt 104788-67-2 104788-71-8, N-Lauroyl-(6-  
**aminoperoxycaproic acid**) 104788-73-0, N-Nonanoyl-(6-  
**aminoperoxycaproic acid**) 108608-43-1D,  
 OctanoyloxyBenzenesulfonic acid, salt 128275-31-0 133725-71-0  
 168051-91-0, 3-Chlorobenzoylcaprolactam 168151-92-6,  
 4-[N-(Nonanoyl)amino hexanoyloxy]hexanoyloxybenzenesulfonic acid sodium  
 salt 181381-62-4D, Decanoyloxybenzoic acid, salt 201413-62-9D, salt  
 223712-92-3D, Benzoyloxybenzenesulfonic acid, salt 223712-95-6D,  
 10-Undecenoyloxybenzenesulfonic acid, salt  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES  
 (Uses)  
 (disinfecting agent; compns. and methods for treating shoes)

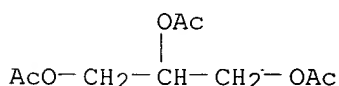
IT 7173-51-5, Bardac 2250  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES  
 (Uses)  
 (disinfecting agents; compns. and methods for treating shoes)

IT 186359-90-0, Neodox 25-6  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES  
 (Uses)  
 (nonionic surfactant (Shell); compns. and methods for treating shoes)

RE.CNT 15  
 RE  
 (1) Anon; PATENT ABSTRACTS OF JAPAN 1997, V1997(07)  
 (2) Anon; PATENT ABSTRACTS OF JAPAN 1998, V1998(02)  
 (3) Anon; PATENT ABSTRACTS OF JAPAN 2000, V2000(04)  
 (4) Baeck; US 5883064 A 1999 HCAPLUS  
 (5) Barrat; US 4285841 A 1981 HCAPLUS  
 (6) Henkel Kgaa; DE 4229660 A 1994 HCAPLUS  
 (7) Hosokawa, K; JP 2000014965 A 2000  
 (8) Hubmejer; GB 378400 A 1932  
 (9) Johnson Kk; JP 09087685 A 1997 HCAPLUS  
 (10) Miracle; US 5576282 A 1996 HCAPLUS  
 (11) Reckitt & Colman Inc; WO 9700738 A 1997 HCAPLUS  
 (12) Remaili, S; BR 9304039 A 1995  
 (13) Unilever Plc; EP 0786514 A 1997 HCAPLUS  
 (14) Unilever Plc; WO 9936499 A 1999 HCAPLUS  
 (15) Yoshioka, M; JP 09271597 A 1997

IT 102-76-1, Triacetin  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES  
 (Uses)  
 (compns. and methods for treating shoes)

RN 102-76-1 HCAPLUS  
 CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



DN 134:300656  
 TI **Tooth whitening** compositions  
 IN Montgomery, R. Eric  
 PA OraCeutical LLC, USA  
 SO U.S., 10 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 IC ICM A61K007-16  
 ICS A61K007-20  
 NCL 424053000  
 CC 62-7 (Essential Oils and Cosmetics)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6221341	B1	20010424	US 1998-196403	19981119
PRAI	US 1997-66187	P	19971119		

AB Novel compns. and methods are disclosed for cosmetically treating **teeth** in a manner to increase brightness or shade of the **teeth**. The compns. include a low mol. wt. compd. having a high acetyl group functionality useful in the prodn. of a **peroxy acid** which then acts as a **whitening agent**. **Toothpastes** contain e.g. **glyceryl triacetate** and Na percarbonate.

ST **tooth whitening compn glyceryl triacetate peroxide generator**

IT **Dentifrices**  
 (tooth whitening compns.)

IT **102-76-1, Glyceryl triacetate**  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (tooth whitening compns.)

IT **79-21-0, Peroxyacetic acid 7722-84-1, Hydrogen peroxide, biological studies 15630-89-4, Sodium percarbonate**  
 RL: BUU (Biological use, unclassified); FMU (Formation, unclassified); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses)  
 (tooth whitening compns.)

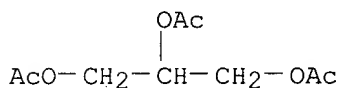
RE.CNT 26

RE

- (1) Anon; EP 0545594 A1 1993 HCAPLUS
- (2) Anon; WO 9320167 1993 HCAPLUS
- (3) Anon; WO 970777 1994
- (4) Anon; WO 9711676 1997 HCAPLUS
- (5) Anon; WO 9940870 1999 HCAPLUS
- (6) Boll; US 5151212 1992 HCAPLUS
- (7) Broze; US 4800038 1989 HCAPLUS
- (8) Broze; US 5047168 1991 HCAPLUS
- (9) Church; US 5279816 1994 HCAPLUS
- (10) Damani; US 5447725 1995 HCAPLUS
- (11) Davies; US 2955905 1960
- (12) Jones; US 3956159 1976 HCAPLUS
- (13) Michaels; US 5885554 1999 HCAPLUS
- (14) Michaels; US 5939080 1999 HCAPLUS
- (15) Montgomery; US 5816802 1998
- (16) Montgomery; US 5908614 1999 HCAPLUS
- (17) Montgomery; US 5922307 1999 HCAPLUS
- (18) Nakagawa; US 3901819 1975 HCAPLUS
- (19) Nakagawa; US 4016090 1977 HCAPLUS
- (20) Russell; US 5102574 1992 HCAPLUS
- (21) Schepers; US 5011622 1991 HCAPLUS
- (22) Schepers; US 5503765 1996 HCAPLUS
- (23) Schow; US 5290566 1994 HCAPLUS
- (24) van der Hoeven; US 4950424 1990 HCAPLUS

KATHLEEN FULLER EIC1700 308-4290

(25) Viscio; US 5302375 1994 HCAPLUS  
 (26) Wilsbere; US 4610799 1986 HCAPLUS  
 IT 102-76-1, **Glyceryl triacetate**  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)  
 (tooth whitening compns.)  
 RN 102-76-1 HCAPLUS  
 CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



IT 7722-84-1, **Hydrogen peroxide**, biological  
 studies 15630-89-4, **Sodium percarbonate**  
 RL: BUU (Biological use, unclassified); FMU (Formation, unclassified);  
 BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses)  
 (tooth whitening compns.)  
 RN 7722-84-1 HCAPLUS  
 CN Hydrogen peroxide (H2O2) (9CI) (CA INDEX NAME)

HO-OH

RN 15630-89-4 HCAPLUS  
 CN Carbonic acid disodium salt, compd. with hydrogen peroxide (H2O2) (2:3)  
 (9CI) (CA INDEX NAME)

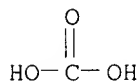
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CRN 7722-84-1  
 CMF H2 O2

HO-OH

CM 2

CRN 497-19-8  
 CMF C H2 O3 . 2 Na



● 2 Na

L69 ANSWER 3 OF 29 HCAPLUS COPYRIGHT 2001 ACS  
 AN 2000:900882 HCAPLUS  
 DN 134:58098  
 TI Pulp **bleaching** activator and its use  
 IN Jakara, Jukka; Paren, Aarto  
 PA Kemira Chemicals Oy, Finland  
 SO PCT Int. Appl., 11 pp.

KATHLEEN FULLER EIC1700 308-4290

CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM D21C009-16  
 CC 43-6 (Cellulose, Lignin, Paper, and Other Wood Products)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000077297	A1	20001221	WO 2000-FI534	20000614
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	FI 9901365	A	20001216	FI 1999-1365	19990615
PRAI	FI 1999-1365	A	19990615		
AB	The invention relates to a <b>bleaching</b> activator that can be used to improve the opacity of <b>peroxide-bleached</b> pulps contg. lignin, and to a method for using the activator. The activator is a glycerol mono-, di-, or triformate, -acetate, or -propionate. Examples were given using triacetin on chemithermomech., refiner mech., pressure groundwood, and mech. pulps.				
ST	pulp <b>bleaching</b> activator glyceride				
IT	Pulp <b>bleaching</b> (glyceride-based activators for <b>peroxide bleaching</b> in)				
IT	Chemithermomechanical pulp (glyceride-based activators for <b>peroxide bleaching</b> of)				
IT	<b>Bleaching</b> agents (glyceride-based activators for <b>peroxide bleaching</b> of pulp)				
IT	Glycerides, uses RL: CAT (Catalyst use); USES (Uses) (glyceride-based activators for <b>peroxide bleaching</b> of pulp)				
IT	Chelating agents (in glyceride-based activators for <b>peroxide bleaching</b> of pulp)				
IT	Cellulose pulp (mech., refiner; glyceride-based activators for <b>peroxide</b> <b>bleaching</b> of)				
IT	Cellulose pulp (mech.; glyceride-based activators for <b>peroxide</b> <b>bleaching</b> of)				
IT	102-76-1, Glycerol triacetate 25395-31-7, Glycerol diacetate RL: CAT (Catalyst use); USES (Uses) (glyceride-based activators for <b>peroxide bleaching</b> of pulp)				
IT	1344-09-8, Water glass RL: CAT (Catalyst use); USES (Uses) (in glyceride-based activators for <b>peroxide bleaching</b> of pulp)				
IT	67-43-6, DTPA 79-21-0, Peracetic acid 7722-84-1, <b>Hydrogen peroxide</b> , uses RL: NUU (Nonbiological use, unclassified); USES (Uses) (in glyceride-based activators for <b>peroxide bleaching</b> of pulp)				

RE.CNT 4

KATHLEEN FULLER EIC1700 308-4290

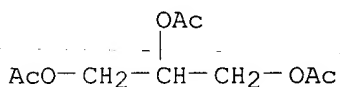
RE

- (1) Anon; JP A55158394 1980  
 (2) Unilever Nv; EP 0481792 A1 1992 HCAPLUS  
 (3) Warwick Internaitonal Group Limited; WO 9418299 A1 1994 HCAPLUS  
 (4) Warwick International Group Limited; WO 9521290 A1 1995 HCAPLUS

IT 102-76-1, Glycerol triacetate 25395-31-7, Glycerol  
 diacetate  
 RL: CAT (Catalyst use); USES (Uses)  
 (glyceride-based activators for **peroxide bleaching**  
 of pulp)

RN 102-76-1 HCAPLUS

CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



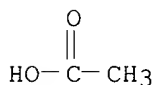
RN 25395-31-7 HCAPLUS

CN 1,2,3-Propanetriol, diacetate (9CI) (CA INDEX NAME)

CM 1

CRN 64-19-7

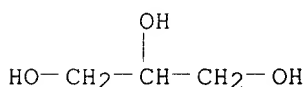
CMF C2 H4 O2



CM 2

CRN 56-81-5

CMF C3 H8 O3



IT 7722-84-1, Hydrogen peroxide, uses  
 RL: NUU (Nonbiological use, unclassified); USES (Uses)  
 (in glyceride-based activators for **peroxide bleaching**  
 of pulp)

RN 7722-84-1 HCAPLUS

CN Hydrogen peroxide (H2O2) (9CI) (CA INDEX NAME)

HO-OH

L69 ANSWER 4 OF 29 HCAPLUS COPYRIGHT 2001 ACS  
 AN 2000:688442 HCAPLUS  
 DN 133:283927  
 TI Method for treatment of underground reservoirs  
 IN Harris, Ralph Edmund; McKay, Ian Donald  
 PA Cleansorb Limited, UK  
 SO PCT Int. Appl., 25 pp.

KATHLEEN FULLER EIC1700 308-4290

CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM E21B037-06  
 ICS E21B043-25  
 CC 51-2 (Fossil Fuels, Derivatives, and Related Products)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000057022	A1	20000928	WO 2000-GB1032	20000320
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRAI	GB 1999-6484	A	19990319		
AB	A method for treating an underground reservoir, which method comprises introducing into the reservoir a treatment fluid comprising, dissolved or dispersed in water, an ester and a polymer breaker, such that the ester hydrolyzes to produce an org. acid to dissolve acid sol. material present within the reservoir and the polymer breaker degrades polymeric material present within the reservoir.				
ST	underground reservoir well treatment fluid enzyme breaker				
IT	Carboxylic acids, uses				
	RL: NUU (Nonbiological use, unclassified); USES (Uses) (esters; method for treatment of underground reservoirs)				
IT	Natural gas wells				
	Oil wells				
	Wells				
	(method for treatment of underground reservoirs)				
IT	Group IIIA element compounds				
	RL: BPR (Biological process); BIOL (Biological study); PROC (Process) (perborates, polymer breaker; method for treatment of underground reservoirs)				
IT	Hypochlorites				
	<b>Peroxides</b> , biological studies				
	<b>Peroxisulfates</b>				
	RL: BPR (Biological process); BIOL (Biological study); PROC (Process) (polymer breaker; method for treatment of underground reservoirs)				
IT	Enzymes, biological studies				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (polysaccharide hydrolyzing, polymer breaker; method for treatment of underground reservoirs)				
IT	9000-30-0, Guar 9004-34-6, Cellulose, biological studies 9005-25-8, Starch, biological studies 11138-66-2, Xanthan 39464-87-4, Scleroglucan 73667-50-2, Succinoglycan				
	RL: BPR (Biological process); BIOL (Biological study); PROC (Process) (method for treatment of underground reservoirs)				
IT	9001-62-1, Lipase 9001-92-7, Protease 9016-18-6, Carboxylesterase				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (method for treatment of underground reservoirs)				
IT	102-76-1, 1,2,3-Propanetriol triacetate 111-21-7, Triethylene glycol diacetate 111-55-7, Ethylene glycol diacetate 628-68-2, Diethylene glycol diacetate 25395-31-7, 1,2,3-Propanetriol diacetate				
	RL: NUU (Nonbiological use, unclassified); USES (Uses) (method for treatment of underground reservoirs)				
IT	563-69-9D, Percarbonic acid, derivs 7722-84-1D, Hydrogen				
	KATHLEEN FULLER EIC1700 308-4290				

peroxide, adducts 13598-52-2D, Phosphoroperoxoic acid,  
 derivs 214483-88-2D, Peroxysilicic acid (H4Si(O2)4),  
 derivs

RL: BPR (Biological process); BIOL (Biological study); PROC (Process)  
 (polymer breaker; method for treatment of underground reservoirs)

IT 9075-53-0, Polysaccharidase

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)

(polymer breaker; method for treatment of underground reservoirs)

RE.CNT 5

RE

(1) Bj Services Co; WO 9820230 A 1998 HCAPLUS

(2) Gupta, D; US 5226479 A 1993

(3) Shell, F; US 5126051 A 1992 HCAPLUS

(4) Tjon-Joe-Pin, R; WO 9401654 A HCAPLUS

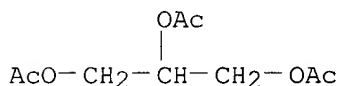
(5) Tjon-Joe-Pin, R; US 5247995 A 1993 HCAPLUS

IT 102-76-1, 1,2,3-Propanetriol triacetate 25395-31-7,  
 1,2,3-Propanetriol diacetate

RL: NUU (Nonbiological use, unclassified); USES (Uses)  
 (method for treatment of underground reservoirs)

RN 102-76-1 HCAPLUS

CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



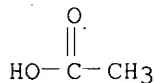
RN 25395-31-7 HCAPLUS

CN 1,2,3-Propanetriol, diacetate (9CI) (CA INDEX NAME)

CM 1

CRN 64-19-7

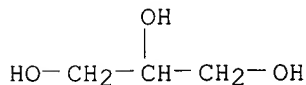
CMF C2 H4 O2



CM 2

CRN 56-81-5

CMF C3 H8 O3



L69 ANSWER 5 OF 29 HCAPLUS COPYRIGHT 2001 ACS

DUPLICATE 1

AN 1999:528989 HCAPLUS

DN 131:149112

TI Light-activated tooth whitening composition and method  
 of using same

IN Montgomery, Robert Eric; Nathoo, Salim A.; Cipolla, Anthony John

PA Britesmile, Inc., USA

SO PCT Int. Appl., 46 pp.

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CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61C003-00  
 ICS A61C005-00; A61K007-16; A61K033-40  
 CC 62-7 (Essential Oils and Cosmetics)  
 Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9940870	A1	19990819	WO 1999-US3100	19990212
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	US 6162055	A	20001219	US 1999-234038	19990119
	AU 9927647	A1	19990830	AU 1999-27647	19990212
	EP 1054642	A1	20001129	EP 1999-908146	19990212
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
	NO 2000004046	A	20000925	NO 2000-4046	20000811
PRAI	US 1998-74708	P	19980213		
	US 1998-75222	P	19980219		
	US 1999-233793	A	19990119		
	US 1999-234038	A	19990119		
	WO 1999-US3100	W	19990212		

AB The present invention provides a **tooth whitening** compn. having a transparent first component that is a carrier compd. and a transparent second component that is an oxidizing compd. which when applied to a stained **tooth** and exposed to actinic light is activated to facilitate **tooth whitening**. The invention also provides a method for light-activated **tooth whitening** which comprises applying a **tooth-whitening** compn. to one or more **teeth** and exposing the compn. to actinic light to activate the oxidizing compd. The present invention further provides a device for **tooth whitening** which has a light source, at least one optical output, a projection means for holding and positioning the optical output outside of a patient's mouth in a manner so as to provide approx. simultaneous and uniform illumination of a patient's front **teeth** by the optical output; and a connection means for connecting the light source to the optical output. The invention also provides methods of using the device. A transparent gel was prep'd. contg. distd. water 49.4, 1-hydroxyethylidene-1,1-diphosphonic acid 1, glycerin 5, **hydrogen peroxide** (35 %) 42.9, Carbopol 974P 1.7%, and ammonium hydroxide (29 %) q.s. to pH 5.5. Stained bovine enamel slabs were coated with a 1-2 mm film of the compn. and exposed to pulsed actinic radiation from an argon plasma arc light source.

ST light activated **tooth whitening peroxide**  
 carboxypolymethylene

IT **Dental** materials and appliances  
 (devices equipped with light source and optical output; light-activated **tooth whitening** compns. contg. carboxypolymethylene gel and oxidants and photoactivators)

IT Ketones, biological studies  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(diketones; light-activated **tooth whitening** compns. contg. carboxypolymethylene gel and oxidants and photoactivators)

IT Fiber optics

KATHLEEN FULLER EIC1700 308-4290

- (fiber-optic instruments; light-activated **tooth whitening** compns. contg. carboxypolymethylene gel and oxidants and photoactivators)
- IT Optical instruments  
(fiber-optic; light-activated **tooth whitening** compns. contg. carboxypolymethylene gel and oxidants and photoactivators)
- IT **Bleaching**  
Dental materials and appliances  
Photosensitizers (pharmaceutical)  
**Tooth**  
(light-activated **tooth whitening** compns. contg. carboxypolymethylene gel and oxidants and photoactivators)
- IT Metallophthalocyanines  
**Peroxy acids**  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(light-activated **tooth whitening** compns. contg. carboxypolymethylene gel and oxidants and photoactivators)
- IT Semiconductor materials  
(particles; light-activated **tooth whitening** compns. contg. carboxypolymethylene gel and oxidants and photoactivators)
- IT Alkali metal oxides  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(peroxides; light-activated **tooth whitening** compns. contg. carboxypolymethylene gel and oxidants and photoactivators)
- IT 95-14-7D, 1H-Benzotriazole, derivs. 119-61-9D, Benzophenone, derivs. 124-43-6, **Carbamide peroxide** 563-69-9D, Percarbonic acid, alkali metal salts 2809-21-4, 1-Hydroxyethylidene-1,1-diphosphonic acid 7722-84-1, **Hydrogen peroxide**, biological studies 12674-33-8D, Perboric acid, alkali metal salts 151687-96-6, Carbopol 974p  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(light-activated **tooth whitening** compns. contg. carboxypolymethylene gel and oxidants and photoactivators)
- IT 1314-13-2, Zinc oxide, biological studies 13463-67-7, Titania, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(particles; light-activated **tooth whitening** compns. contg. carboxypolymethylene gel and oxidants and photoactivators)
- IT 50-78-2, Acetylsalicylic acid 102-76-1, Glycerol triacetate 10543-57-4  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(peroxyacid precursor; light-activated **tooth whitening** compns. contg. carboxypolymethylene gel and oxidants and photoactivators)

RE.CNT 15

RE

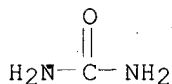
- (1) Ardiot; FR 2645734 A1 1990
- (2) Becker; US 4952143 A 1990
- (3) Benedict; US 4256730 A 1981 HCAPLUS
- (4) Cheslak; US 4790752 A 1988
- (5) Cheslak; US 4790752 A 1988
- (6) Church; US 5279816 A 1994 HCAPLUS
- (7) Friedman; US 4661070 A 1987
- (8) Montgomery; US 5816802 A 1998
- (9) Montgomery; WO 9804235 A1 1998 HCAPLUS
- (10) Pellico; US 5718886 A 1998 HCAPLUS
- (11) Prencipe; US 5256402 A 1993 HCAPLUS

KATHLEEN FULLER EIC1700 308-4290

(12) Rudy; US 4971782 A 1990 HCAPLUS  
 (13) Ultradent Products Inc; WO 9114650 A1 1991 HCAPLUS  
 (14) Viscio; US 5302375 A 1994 HCAPLUS  
 (15) Zaragoza, T; US 4983381 A 1991  
 IT 124-43-6, Carbamide peroxide 7722-84-1  
 , Hydrogen peroxide, biological studies  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)  
 (light-activated tooth whitening compns. contg.  
 carboxypolymethylene gel and oxidants and photoactivators)  
 RN 124-43-6 HCAPLUS  
 CN Urea, compd. with hydrogen peroxide (H2O2) (1:1) (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 7722-84-1  
 CMF H2 O2

HO-OH

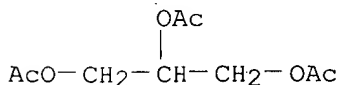
CM 2  
 CRN 57-13-6  
 CMF C H4 N2 O



RN 7722-84-1 HCAPLUS  
 CN Hydrogen peroxide (H2O2) (9CI) (CA INDEX NAME)

HO-OH

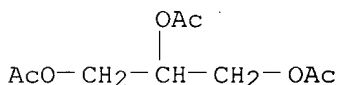
IT 102-76-1, Glycerol triacetate  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)  
 (peroxyacid precursor; light-activated tooth  
 whitening compns. contg. carboxypolymethylene gel and oxidants  
 and photoactivators)  
 RN 102-76-1 HCAPLUS  
 CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



L69 ANSWER 6 OF 29 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1998:728456 HCAPLUS  
 DN 130:40116  
 TI Oleophilic bleach activator granules and bleach  
 compositions containing the same with excellent storability and peracid  
 generation  
 IN Nishioka, Junko; Miyasaki, Yoshitaka; Sasaki, Hisaya  
 KATHLEEN FULLER EIC1700 308-4290

PA Lion Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C11D010-02  
 ICS C11D001-66; C11D003-12; C11D003-39; C11D003-395; C11D017-06  
 CC 46-6 (Surface Active Agents and Detergents)  
 FAN.CNT 1

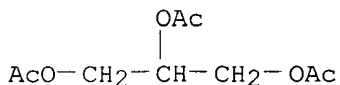
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10298598	A2	19981110	JP 1997-111334	19970428
AB	The title granules are obtained by impregnating <b>bleach</b> activators into an oleophilic carrier, wherein the <b>bleach</b> activators are hydrophilic group-free org. peracid precursors (m.p. .ltoreq.50.degree.) producing percarboxylic acids upon reaction with <b>hydrogen peroxide</b> . Granules comprised 60 parts Tokusil NR and 40 parts Ph octoate.				
ST	oleophilic peracid <b>bleach</b> activator; granule peracid <b>bleach</b> activator silica carrier				
IT	<b>Bleaching</b> agents (oleophilic <b>bleach</b> activator granules and <b>bleach</b> compns. contg. the same with excellent storability and peracid generation)				
IT	77-89-4 102-76-1		5457-78-3, Phenyl octanoate	7631-86-9,	
	Tokusil NR, uses 59558-23-5				
	RL: NUU (Nonbiological use, unclassified); USES (Uses) (oleophilic <b>bleach</b> activator granules and <b>bleach</b> compns. contg. the same with excellent storability and peracid generation)				
IT	102-76-1				
	RL: NUU (Nonbiological use, unclassified); USES (Uses) (oleophilic <b>bleach</b> activator granules and <b>bleach</b> compns. contg. the same with excellent storability and peracid generation)				
RN	102-76-1	HCAPLUS			
CN	1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)				



L69 ANSWER 7 OF 29 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1998:178248 HCAPLUS  
 DN 128:258729  
 TI Liquid oxygen-type **bleaching** composition for textile, counter and hard surfaces  
 IN Miyamae, Yoshitaka; Shindo, Hiroyuki; Nishioka, Junko; Fukano, Kazuaki  
 PA Lion Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 12 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C11D007-54  
 ICS C11D017-08; C11D007-54; C11D007-08; C11D007-26; C11D007-18; C11D007-32  
 CC 46-5 (Surface Active Agents and Detergents)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10072595	A2	19980317	JP 1997-126470	19970430
	KATHLEEN FULLER EIC1700 308-4290				

PRAI JP 1996-190048 19960701  
 OS MARPAT 128:258729  
 AB The compn., having good storage stability, comprises aq. soln. contg.  
 0.01-30:0.01-30:0.01-30:0.01-10% (a) **hydrogen peroxide**  
 , (b) a boron compd. (Na borate), (c) a polyol (glucose) and (d) a  
 reaction product of C2-18 org. **peroxide** and **H2O2**  
 (e.g., tetracetyl ethylenediamine) mixt., wherein b/c is 1-10/1-30.  
 ST **bleaching** textile sodium borate **hydrogen**  
**peroxide**; glucose **bleaching** textile storage stability;  
 tetracetyl ethylenediamine **bleaching** counter  
 IT **Bleaching** agents  
 Counters  
 Fabrics  
 (liq. oxygen-type **bleaching** compn. for textile, counter and  
 hard surfaces)  
 IT Laundry detergents  
 (liq.; liq. oxygen-type **bleaching** compn. for textile, counter  
 and hard surfaces)  
 IT 50-70-4, Sorbitol, uses 50-99-7, Glucose, uses 77-89-4 83-87-4,  
 Pentaacetylglucose **102-76-1** 1330-43-4, Sodium tetraborate  
 1888-91-1 2345-34-8, p-Acetyloxybenzoic acid 3027-06-3 6248-28-8  
 10543-57-4, Tetraacetylenediamine 17720-63-7 28547-23-1,  
 p-Benzoyloxybenzoic acid 65121-95-1 86960-46-5 89531-23-7  
 92901-15-0 102568-16-1 104568-19-6 171550-58-6, p-  
 Decanoyloxybenzenesulfonic acid 189025-32-9 205260-18-0 205260-19-1  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (liq. oxygen-type **bleaching** compn. for textile, counter and  
 hard surfaces)  
 IT **7722-84-1, Hydrogen peroxide (H2O2)**,  
 uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (liq. oxygen-type **bleaching** compn. for textile, counter and  
 hard surfaces)  
 IT 52602-16-1  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (s liq. oxygen-type **bleaching** compn. for textile, counter and  
 hard surfaces)  
 IT **102-76-1**  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (liq. oxygen-type **bleaching** compn. for textile, counter and  
 hard surfaces)  
 RN 102-76-1 HCAPLUS  
 CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



IT **7722-84-1, Hydrogen peroxide (H2O2)**,  
 uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (liq. oxygen-type **bleaching** compn. for textile, counter and  
 hard surfaces)  
 RN 7722-84-1 HCAPLUS  
 CN Hydrogen peroxide (H2O2) (9CI) (CA INDEX NAME)

HO-OH

AN 1996:363432 HCAPLUS  
 DN 125:13830  
 TI Nonaqueous liquid washing or cleaning product with **bleaching**  
 power  
 IN Beaujean, Hans-Josef; Block, Christian; Hofmann, Rainer; Legel, Dieter;  
 Lind, Rudolf; Penninger, Josef; Richter, Bernd; Schackmann, Reiner;  
 Schwadtke, Karl  
 PA Henkel Kommanditgesellschaft Auf Aktien, Germany  
 SO PCT Int. Appl., 27 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA German  
 IC ICM C11D017-00  
 ICS C11D003-39  
 CC 46-6 (Surface Active Agents and Detergents)  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9605284	A1	19960222	WO 1995-EP3124	19950807
	W: CN, JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 4428958	A1	19960222	DE 1994-4428958	19940816
	DE 4436151	A1	19960502	DE 1994-4436151	19941011
	EP 777722	A1	19970611	EP 1995-930440	19950807
	EP 777722	B1	19990317		
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL				
	CN 1155298	A	19970723	CN 1995-194597	19950807
	JP 10504342	T2	19980428	JP 1995-506992	19950807
	<u>US 5880083</u>	A	19990309	US 1997-776682	19970214
PRAI	DE 1994-4428958		19940816		
	DE 1994-4436151		19941111		
	WO 1995-EP3124		19950807		

AB Solid- and **bleaching** agent-contg. liq. washing or cleaning  
 products are storage stable if they are not aq. and contain from 20 to 78%  
 by wt. nonionic surfactants, 0.1 to 25% by wt. anionic surfactants, 1 to  
 20% by wt. water-sol. builder substances and 20 to 35% by wt.  
**bleaching** agents. The products may further contain enzymes and  
 dirt-repelling polymers. These products are prepd. by premixing  
 surfactants or partial amts. of surfactants and by crushing them so that  
 the temp. of the mixt. does not exceed 45.degree.C.

ST liq nonaq washing compn storage stable; water sol builder nonaq washing  
 compn; dirt repelling polymer nonaq washing compn; enzyme  
**bleaching** nonaq washing compn; **bleaching** agent nonaq liq  
 washing compn; anionic surfactant nonaq liq washing compn; nonionic  
 surfactant nonaq liq washing compn; cleaning compn liq nonaq storage  
 stable

IT Sulfonates  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (C8-18 alkane; storage-stable nonaq. liq. washing or cleaning products  
 with **bleaching** power)

IT Polymers, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material  
 use); USES (Uses)  
 (dirt-repelling; storage-stable nonaq. liq. washing or cleaning  
 products with **bleaching** power)

IT **Bleaching** agents  
 (storage-stable nonaq. liq. washing or cleaning products with  
**bleaching** power)

IT Enzymes  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (storage-stable nonaq. liq. washing or cleaning products with  
**bleaching** power)

IT Alcohols, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)

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- (C10-14, ethoxylated propoxylated, Dehydol 980; storage-stable nonaq. liq. washing or cleaning products with **bleaching** power)
- IT Alcohols, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(C12-14, ethoxylated, Dehydol LS 6; storage-stable nonaq. liq. washing or cleaning products with **bleaching** power)
- IT Glycosides  
RL: TEM (Technical or engineered material use); USES (Uses)  
(C12-14-alkyl, storage-stable nonaq. liq. washing or cleaning products with **bleaching** power)
- IT Alcohols, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(C12-18, ethoxylated, Dehydol LT 7; storage-stable nonaq. liq. washing or cleaning products with **bleaching** power)
- IT Alcohols, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(C13-15, ethoxylated, Lutensol AO 7; storage-stable nonaq. liq. washing or cleaning products with **bleaching** power)
- IT Fatty acids, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Me esters, alkoxylated; storage-stable nonaq. liq. washing or cleaning products with **bleaching** power)
- IT Detergents  
(cleaning compns., storage-stable nonaq. liq. washing or cleaning products with **bleaching** power)
- IT Carboxylic acids, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(di-, C4-6, Sokalan DCS, builder; storage-stable nonaq. liq. washing or cleaning products with **bleaching** power)
- IT Carboxylic acids, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(poly-, sodium salts, storage-stable nonaq. liq. washing or cleaning products with **bleaching** power)
- IT 497-19-8D, Carbonic acid disodium salt, mixt. with C12-14 alkyl polyglycoside  
RL: TEM (Technical or engineered material use); USES (Uses)  
(APG-Soda-Compd.; storage-stable nonaq. liq. washing or cleaning products with **bleaching** power)
- IT 11138-47-9, Sodium perborate  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(**bleach**; storage-stable nonaq. liq. washing or cleaning products with **bleaching** power)
- IT 102-76-1, Triacetin 10543-57-4, N,N,N'-N'-Tetraacetylenediamine  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(**bleaching** activator; storage-stable nonaq. liq. washing or cleaning products with **bleaching** power)
- IT 68-04-2, Sodium citrate 1344-09-8, Sodium silicate 13870-28-5, SKS 6  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(builder; storage-stable nonaq. liq. washing or cleaning products with **bleaching** power)
- IT 25322-68-3  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(dirt-repelling polymer; storage-stable nonaq. liq. washing or cleaning products with **bleaching** power)
- IT 98-11-3D, Benzenesulfonic acid, C11-13 alkyl derivs., salts 110-11-2, Octyl sulfate 7664-93-9D, Sulfuric acid, esters with C16-18 fatty alcs., sodium salts 9000-92-4, Amylase 9001-62-1, Lipase 9001-92-7,

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Protease 9003-11-6D, Ethylene oxide-propylene oxide copolymer, C10-14 alkyl ethers 9012-54-8, Cellulase 25155-30-0 25322-68-3D, alkyl ethers 27252-75-1, Dehydol 04 150770-68-6, Sulfofon T 177646-10-5, Edenor HT 35

RL: TEM (Technical or engineered material use); USES (Uses)  
(storage-stable nonaq. liq. washing or cleaning products with bleaching power)

IT 11138-47-9, Sodium perborate

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(bleach; storage-stable nonaq. liq. washing or cleaning products with bleaching power)

RN 11138-47-9 HCAPLUS

CN Perboric acid, sodium salt (8CI, 9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

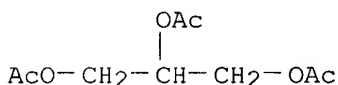
IT 102-76-1, Triacetin

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(bleaching activator; storage-stable nonaq. liq. washing or cleaning products with bleaching power)

RN 102-76-1 HCAPLUS

CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



L69 ANSWER 9 OF 29 HCAPLUS COPYRIGHT 2001 ACS

AN 1996:679169 HCAPLUS

DN 125:303861

TI Activated liquid bleaching compositions

IN Scialla, Stefano; Scoccianti, Raffaele

PA Procter and Gamble Company, USA

SO Eur. Pat. Appl., 8 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM C11D017-00

ICS C11D003-39

CC 46-5 (Surface Active Agents and Detergents)

Section cross-reference(s): 40

FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 735133	A1	19961002	EP 1995-203330	19951202
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	EP 1010749	A2	20000621	EP 2000-102577	19951202
	EP 1010749	A3	20000920		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE				
	EP 735131	A2	19961002	EP 1996-870023	19960304
	EP 735131	A3	19961211		
	R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	CA 2215709	AA	19961003	CA 1996-2215709	19960304
	WO 9630456	A1	19961003	WO 1996-US2308	19960304
	W: AL, AM, AU, AZ, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ				
	RW: KE, LS, MW, SD, SZ, UG, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				

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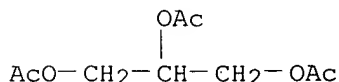
AU 9651713	A1	19961016	AU 1996-51713	19960304
AU 711628	B2	19991021		
BR 9607962	A	19980714	BR 1996-7962	19960304
JP 11502883	T2	19990309	JP 1996-529370	19960304
CN 1234819	A	19991110	CN 1996-194174	19960304
WO 9630474	A1	19961003	WO 1996-US3977	19960325
W: CA, JP, MX, US				
NO 9704212	A	19970912	NO 1997-4212	19970912
<del>FI 9703808</del>	A	19970926	FI 1997-3808	19970926
US 5968885	A	19991019	US 1997-981372	19971218
US 5900187	A	19990504	US 1998-913376	19980128
US 5997585	A	19991207	US 1998-211380	19981215
AU 9945878	A1	19991111	AU 1999-45878	19990901
PRAI EP 1995-870026	A	19950327		
US 1995-557	P	19950627		
EP 1995-870079	A	19950630		
EP 1995-203330	A3	19951202		
AU 1996-51713	A3	19960304		
EP 1996-870023	A	19960304		
WO 1996-US2308	W	19960304		
EP 1996-870054	A	19960422		
WO 1996-US10906	W	19960626		
US 1998-913376	A3	19980128		
OS MARPAT 125:303861				
AB	Liq. <b>bleaching</b> compns. for use in <b>bleaching</b> of textiles comprise <b>H2O2</b> or a source thereof and a <b>bleach</b> activator. The liq. <b>bleach</b> activator is hydrophobic, and the compns. are formulated as microemulsions of the <b>bleach</b> activator in a hydrophilic matrix comprising water and a surfactant system comprising an anionic surfactant and a nonionic surfactant.			
ST	hydrophobic liq <b>bleach</b> activator; <b>hydrogen</b> <b>peroxide</b> liq <b>bleach</b> activator; anionic surfactant <b>bleach</b> compn; nonionic surfactant <b>bleach</b> compn; amine oxide <b>bleach</b> agent; textile liq <b>bleaching</b> agent; water sol <b>bleaching</b> compn			
IT	<b>Bleaching agents</b> (activated liq. <b>bleaching</b> compns. contg. <b>hydrogen</b> <b>peroxide</b> and <b>bleach</b> activator)			
IT	Alcohols, uses RL: MOA (Modifier or additive use); USES (Uses) (C12-13, ethoxylated, Neodol 23-3, nonionic surfactants; activated liq. <b>bleaching</b> compns. contg. <b>hydrogen peroxide</b> and <b>bleach</b> activator)			
IT	Alcohols, uses RL: MOA (Modifier or additive use); USES (Uses) (C12-13-branched, ethoxylated, nonionic surfactants; activated liq. <b>bleaching</b> compns. contg. <b>hydrogen peroxide</b> and <b>bleach</b> activator)			
IT	Alcohols, uses RL: MOA (Modifier or additive use); USES (Uses) (C14-15, ethoxylated, Neodol 45-7; activated liq. <b>bleaching</b> compns. contg. <b>hydrogen peroxide</b> and <b>bleach</b> activator)			
IT	Alcohols, uses RL: MOA (Modifier or additive use); USES (Uses) (C14-15-branched, ethoxylated, Dobanol 45-7, nonionic surfactants; activated liq. <b>bleaching</b> compns. contg. <b>hydrogen</b> <b>peroxide</b> and <b>bleach</b> activator)			
IT	Alcohols, uses RL: MOA (Modifier or additive use); USES (Uses) (C9-11, ethoxylated, nonionic surfactants; activated liq. <b>bleaching</b> compns. contg. <b>hydrogen peroxide</b> and <b>bleach</b> activator)			
IT	Amines, uses			

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- RL: MOA (Modifier or additive use); USES (Uses)  
(N-oxides, activated liq. **bleaching** compns. contg. **hydrogen peroxide** and **bleach** activator)
- IT Surfactants  
(anionic, activated liq. **bleaching** compns. contg. **hydrogen peroxide** and **bleach** activator)
- IT Surfactants  
(nonionic, activated liq. **bleaching** compns. contg. **hydrogen peroxide** and **bleach** activator)
- IT Polyoxyalkylenes, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(sulfo-terminated, alkyl ethers, sodium salts, anionic surfactants; activated liq. **bleaching** compns. contg. **hydrogen peroxide** and **bleach** activator)
- IT 100-51-6, Benzyl alcohol, uses 26264-14-2, Propanediol  
RL: MOA (Modifier or additive use); USES (Uses)  
(activated liq. **bleaching** compns. contg. **hydrogen peroxide** and **bleach** activator)
- IT 7722-84-1, **Hydrogen peroxide**, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(activated liq. **bleaching** compns. contg. **hydrogen peroxide** and **bleach** activator)
- IT 98-11-3D, Benzenesulfonic acid, alkyl, salts 7664-93-9D, Sulfuric acid, alkyl esters, salts  
RL: MOA (Modifier or additive use); USES (Uses)  
(anionic surfactants; activated liq. **bleaching** compns. contg. **hydrogen peroxide** and **bleach** activator)
- IT 77-89-4, Acetyl triethyl citrate 102-76-1, Triacetin 7572-23-8 167846-24-4  
RL: MOA (Modifier or additive use); USES (Uses)  
(**bleach** activator; activated liq. **bleaching** compns. contg. **hydrogen peroxide** and **bleach** activator)
- IT 7722-84-1, **Hydrogen peroxide**, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(activated liq. **bleaching** compns. contg. **hydrogen peroxide** and **bleach** activator)
- RN 7722-84-1 HCAPLUS
- CN Hydrogen peroxide (H2O2) (9CI) (CA INDEX NAME)

HO-OH

- IT 102-76-1, Triacetin  
RL: MOA (Modifier or additive use); USES (Uses)  
(**bleach** activator; activated liq. **bleaching** compns. contg. **hydrogen peroxide** and **bleach** activator)
- RN 102-76-1 HCAPLUS
- CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



IN Wilde, Andreas; Liphard, Maria; Kuester, Harald; Pegelow, Ulrich; Hill,  
Karlheinz; Junkes, Christian; Block, Christian  
PA Henkel Kgaa, Germany  
SO Ger. Offen., 8 pp.  
CODEN: GWXXBX  
DT Patent  
LA German  
IC ICM C11D003-39  
ICS C11D003-26; A01N059-00; D06L003-02; A61L002-16; C07C233-91;  
C07C409-24; C07D227-093  
ICA C07C407-00; C07H015-04; C07C229-16; C07C069-21  
ICI C11D003-39, C11D003-26; C11D001-02, C11D001-66, C11D003-386, C11D003-20,  
C11D003-382, C11D003-12  
CC 46-5 (Surface Active Agents and Detergents)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4443177	A1	19960613	DE 1994-4443177	19941205
	WO 9617920	A1	19960613	WO 1995-EP4663	19951127
	W: JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
PRAI	DE 1994-4443177		19941205		
OS	MARPAT 125:118089				
AB	Activator combinations which provide long- and short-chain <b>peroxy acids</b> [e.g., N-nonanoylsuccinimide and (Ac2NCH2)2, resp.] are useful in compns. (e.g., laundry detergents) contg. inorg. <b>peroxy acids</b> (e.g., Na perborate monohydrate).				
ST	nonanoylsuccinimide activator mixt <b>peroxygen bleach</b> ; tetraacetythylenediamine activator mixt <b>peroxygen bleach</b> ; perborate <b>bleach</b> activator mixt; laundry detergent <b>bleach</b> activator mixt; succinimide nonanoyl activator mixt <b>peroxygen bleach</b> ; <b>peroxide bleach</b> activator mixt				
IT	Bactericides, Disinfectants, and Antiseptics (mixts. of activators for inorg. <b>peroxy acids</b> in)				
IT	<b>Bleaching agents</b> ( <b>peroxygen</b> ; mixts. of activators for)				
IT	Detergents (laundry, mixts. of activators for inorg. <b>peroxy acids</b> in)				
IT	7722-84-1, <b>Hydrogen peroxide</b> , uses 10332-33-9, <b>Sodium perborate</b> monohydrate RL: TEM (Technical or engineered material use); USES (Uses) ( <b>bleaching agent</b> ; mixts. of activators for)				
IT	83-87-4 <b>102-76-1, Triacetin</b> 111-55-7, Ethylene glycol diacetate 6291-42-5, Lactose octaacetate 6866-50-8, Fructose pentaacetate 7093-88-1, 2,5-Diacetoxy-2,5-dihydrofuran 10543-57-4, Tetraacetythylenediamine 10543-60-9, Tetraacetyl glycoluril 30571-56-3, Xylose tetraacetate 68449-52-5, N-Nonanoylsuccinimide 86320-44-7, 1,5-Diacetyl-2,4-dioxohexahydro-1,3,5-triazine RL: MOA (Modifier or additive use); USES (Uses) (in mixts. of activators for <b>peroxygen bleaching agents</b> )				
IT	7722-84-1, <b>Hydrogen peroxide</b> , uses RL: TEM (Technical or engineered material use); USES (Uses) ( <b>bleaching agent</b> ; mixts. of activators for)				
RN	7722-84-1 HCAPLUS				
CN	Hydrogen peroxide (H2O2) (9CI) (CA INDEX NAME)				

HO-OH

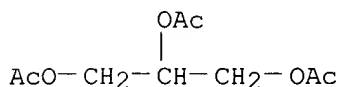
IT 102-76-1, Triacetin

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RL: MOA (Modifier or additive use); USES (Uses)  
(in mixts. of activators for **peroxygen bleaching**  
agents)

RN 102-76-1 HCAPLUS

CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



L69 ANSWER 11 OF 29 HCAPLUS COPYRIGHT 2001 ACS

AN 1995:654884 HCAPLUS

DN 123:35836

TI Compositions for **bleaching** stains without discoloring colored fabrics

IN Matsunaga, Satoshi; Miyamae, Yoshitaka; Inoha, Mieko; Yoshimura, Haruo

PA Lion Corp., Japan

SO PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C11D003-39

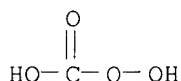
CC 46-5 (Surface Active Agents and Detergents)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9419446	A1	19940901	WO 1994-JP307	19940225
	W: AU, BB, BG, BR, BY, CA, CN, CZ, FI, GE, HU, JP, KR, KZ, LK, LV, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, US, UZ, VN				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9461156	A1	19940914	AU 1994-61156	19940225
PRAI	JP 1993-63168		19930226		
	JP 1993-113829		19930415		
	WO 1994-JP307		19940225		
AB	The title compns., showing high <b>bleaching</b> power, comprise a <b>peroxygen</b> compd. and a mixt. of an org. per acid (or precursor) and an amine, amine salt and/or quaternary ammonium salt, the mixt. being granulated with a binder or impregnated into a carrier. A <b>bleaching</b> compn. contained Na percarbonate and a granulated mixt. of (Ac <sub>2</sub> NCH <sub>2</sub> ) <sub>2</sub> , (2-hydroxyethyl)amine sulfate, and polyethylene glycol.				
ST	percarbonate <b>bleach</b> amine colored fabric; amine <b>peroxygen bleach</b> colored fabric; ammonium salt <b>peroxygen bleach</b> colored fabric; laundry detergent <b>bleach</b> colored fabric; activator <b>bleach</b> amine colored fabric; discoloration prevention <b>bleaching</b> colored fabric				
IT	Fatty acids, uses RL: MOA (Modifier or additive use); USES (Uses) (amine salts; in <b>peroxygen</b> compd.-contg. <b>bleach</b> compns. for <b>white</b> and colored fabrics)				
IT	Amines, uses Quaternary ammonium compounds, uses RL: MOA (Modifier or additive use); USES (Uses) (in <b>peroxygen</b> compd.-contg. <b>bleach</b> compns. for <b>white</b> and colored fabrics)				
IT	Granulation (of <b>bleach</b> activator compns. for <b>bleaching</b> <b>white</b> and colored fabrics)				
IT	<b>Bleaching</b> agents ( <b>peroxygen</b> ; for <b>white</b> and colored fabrics)				
IT	Detergents				

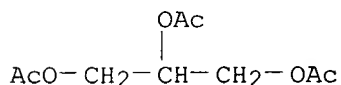
KATHLEEN FULLER EIC1700 308-4290

- (laundry, contg. **bleaching** agents for **white** and colored fabrics)
- IT 25322-68-3  
RL: MOA (Modifier or additive use); USES (Uses)  
(binders; in granulated amine-**peroxygen bleach** activator mixts.)
- IT 10543-57-4, Tetraacetylenediamine 89740-12-5, Sodium p-octanoyloxybenzenesulfonate 131501-22-9 164460-15-5, Sodium 4-octanoyloxybenzoate  
RL: MOA (Modifier or additive use); USES (Uses)  
(**bleach** activators; in granulated amine-contg. compns. for **bleaching** of **white** and colored fabrics)
- IT 4452-58-8, Sodium percarbonate  
RL: MOA (Modifier or additive use); USES (Uses)  
(in compns. for **bleaching** of **white** and colored fabrics)
- IT 83-87-4 102-76-1, Triacetin 604-70-6, Tetraacetyl methyl glucoside 56670-31-6, 4-Octanoyloxybenzoic acid  
RL: MOA (Modifier or additive use); USES (Uses)  
(in granulated amine-contg. compns. for **bleaching** of **white** and colored fabrics)
- IT 107-64-2 111-42-2, uses 593-51-1, Methylamine hydrochloride 1118-41-8, Diheptadecyldimethylammonium chloride 7376-31-0, Triethanolamine sulfate 16039-66-0 20261-59-0 22029-36-3 22029-38-5 53404-39-0, Myristic acid diethanolamine salt 53576-51-5 53926-87-7, Benzoic acid diethanolamine salt 61345-67-3, Diethanolamine sulfate 66553-53-5, N-Methylundecylamine 68961-42-2 74267-56-4 93893-01-7 164460-09-7 164460-10-0 164460-11-1 164460-12-2 164460-13-3 164460-14-4  
RL: MOA (Modifier or additive use); USES (Uses)  
(in **peroxygen** compd.-contg. **bleach** compns. for **white** and colored fabrics)
- IT 4452-58-8, Sodium percarbonate  
RL: MOA (Modifier or additive use); USES (Uses)  
(in compns. for **bleaching** of **white** and colored fabrics)
- RN 4452-58-8 HCAPLUS  
CN Carbonoperoxoic acid, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

- IT 102-76-1, Triacetin  
RL: MOA (Modifier or additive use); USES (Uses)  
(in granulated amine-contg. compns. for **bleaching** of **white** and colored fabrics)
- RN 102-76-1 HCAPLUS  
CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



AN 1994:412285 HCAPLUS  
 DN 121:12285  
 TI **Bleaching of surfactants by peroxides**  
 IN Schulz, Paul; Eskuchen, Rainer  
 PA Henkel K.-G.a.A., Germany  
 SO Ger. Offen., 5 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 IC ICM C07B063-00  
 ICS C07C069-18; C07C309-70; B01F017-00; B01F017-56; C11D001-12;  
 C11D003-395; B01J020-16; C01F007-00  
 CC 46-3 (Surface Active Agents and Detergents)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4225223	A1	19940203	DE 1992-4225223	19920730
	WO 9403423	A1	19940217	WO 1993-EP1937	19930721
	W: BR, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
PRAI	DE 1992-4225223		19920730		
AB	Improved brightness is obtained when hydrotalcite or triacetin is present during the <b>bleaching</b> of surfactants (e.g., alkyl and/or alkenyl glycosides) by <b>peroxides</b> , esp. H2O2.				
ST	<b>bleaching</b> surfactant <b>peroxide</b> hydrotalcite triacetin; glycoside surfactant <b>bleaching peroxide</b> ; <b>hydrogen peroxide bleaching</b> surfactant				
IT	Surfactants ( <b>bleaching</b> of, by <b>peroxides</b> , hydrotalcite and triacetin for improved)				
IT	<b>Bleaching</b> (of surfactants by <b>peroxides</b> , hydrotalcite and triacetin for improved)				
IT	<b>Bleaching agents</b> ( <b>peroxides</b> , for surfactants, in presence of hydrotalcite and triacetin)				
IT	Fatty acids, uses RL: USES (Uses) (Me esters, .alpha.-sulfo, surfactants, <b>bleaching</b> of, by <b>peroxides</b> )				
IT	Glycosides RL: TEM (Technical or engineered material use); USES (Uses) (alkyl, surfactants, <b>bleaching</b> of, by <b>peroxides</b> , hydrotalcite and triacetin for improved)				
IT	7722-84-1, <b>Hydrogen peroxide</b> , uses RL: USES (Uses) ( <b>bleaching</b> by, of surfactants, hydrotalcite and triacetin for improved)				
IT	102-76-1, Triacetin 12304-65-3, Hydrotalcite RL: USES (Uses) ( <b>bleaching</b> of surfactants by <b>peroxide</b> in presence of)				
IT	7722-84-1, <b>Hydrogen peroxide</b> , uses RL: USES (Uses) ( <b>bleaching</b> by, of surfactants, hydrotalcite and triacetin for improved)				
RN	7722-84-1 HCAPLUS				
CN	Hydrogen peroxide (H2O2) (9CI) (CA INDEX NAME)				

HO-OH

IT 102-76-1, Triacetin

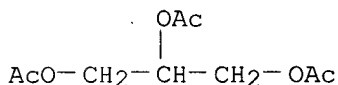
KATHLEEN FULLER EIC1700 308-4290

RL: USES (Uses)

(bleaching of surfactants by peroxide in presence of)

RN 102-76-1 HCAPLUS

CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



L69 ANSWER 13 OF 29 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 1995-051599 [07] WPIDS

DNC C1995-023559

TI Compositions for aiding periodontal tissue regeneration - comprise bio-resorbable polymers, leachable solvents and bio-available drug active agents and harden on contact with periodontal tissue, slowly releasing the drug.

DC A96 B05 D21

IN DAMANI, N C; MOHL, D C; SINGER, R E

PA (PROC) PROCTER & GAMBLE CO

CYC 22

PI WO 9428935 A1 19941222 (199507)\* EN 16p A61K047-14

RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

W: CA CN JP RU

US 5447725 A 19950905 (199541) 7p A61K009-06

EP 702567 A1 19960327 (199617) EN A61K047-14

R: AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE

JP 08511528 W 19961203 (199710) 16p A61K047-14

CN 1126948 A 19960717 (199749) A61K047-14

CA 2164933 C 19990112 (199913) A61K047-30

ADT WO 9428935 A1 WO 1994-US5952 19940526; US 5447725 A US 1993-76304 19930611; EP 702567 A1 EP 1994-917486 19940526; WO 1994-US5952 19940526; JP 08511528 W WO 1994-US5952 19940526; JP 1995-501855 19940526; CN 1126948 A CN 1994-192670 19940526; CA 2164933 C CA 1994-2164933 19940526

FDT EP 702567 A1 Based on WO 9428935; JP 08511528 W Based on WO 9428935

PRAI US 1993-76304 19930611

REP EP 430474; WO 9408562

IC ICM A61K009-06; A61K047-14; A61K047-30

ICS A61K009-00; A61K031-00; A61K031-65; A61K031-74; A61K037-00; A61K038-17; A61K045-00; A61K047-22

AB WO 9428935 A UPAB: 19950223

A composition for aiding periodontal tissue regeneration in humans or lower animals which is placed at the site in need of periodontal tissue regeneration comprises a bioresorbable polymer, leachable solvent and bioavailable drug active agents and becomes harder on contact with the periodontal tissue so that the composition is effective in aiding tissue regeneration and releases a therapeutically effective amt. of drug active agent.

USE - The composition aids periodontal tissue regeneration.

ADVANTAGE - The compositions are syringeable and when applied become, near solid encasing the tooth surface. The active agents are slowly released from the matrix due to erosion of and some diffusion through the matrix. The bioerodible copolymers used provide a support for the growth of the tissue. As the components are bioerodible, there is no need to remove the compositions.

Dwg.0/0

FS CPI

FA AB; DCN

MC CPI: A09-A07; A12-V01; A12-V03C1; B04-C01; B04-C02; B04-C03D; B04-N02; B12-M10B; B14-N06B; D08-A05

L69 ANSWER 14 OF 29 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1994:167328 HCAPLUS  
 DN 120:167328  
 TI Liquid **bleach** and detergent compositions containing sodium  
 superperborate  
 IN Sanderson, William Ronald; Wharne, John David  
 PA Solvay Interlox Ltd., UK  
 SO Eur. Pat. Appl., 11 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM C11D003-39  
 ICS C11D017-00  
 CC 46-5 (Surface Active Agents and Detergents)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 565017	A2	19931013	EP 1993-105586	19930405
	EP 565017	B1	19990707		
	R: BE, DE, ES, FR, GB, IT, NL				
	ES 2136098	T3	19991116	ES 1993-105586	19930405
	US 5458802	A	19951017	US 1993-103301	19930412
PRAI	GB 1992-7981		19920410		
AB	The title nonaq. comps. contain a Na superperborate $\text{NaXB}_y\text{O}_z \cdot n\text{H}_2\text{O}$ ( $x = 1-4$ ; $y = 1-5$ ; $z = 2-15$ ; $n = 1-5$ ; $x/y = 0.5-1.2$ ) as a <b>bleaching</b> agent which shows better storage stability than Na perborate monohydrate. The superperborate is suspended in a liq. such as triacetin, polyethylene glycol with mol. wt. 200, or a nonionic surfactant. A compn. contained 7.5% Na superperborate (23.2% active O; Na/B molar ratio 1) and 92.5% Ethylan CD 919 (ethoxylated C9 alc.).				
ST	perborate super <b>bleach</b> compn liq; <b>bleach</b> compn liq superperborate; storage stability superperborate <b>bleach</b> ; laundry detergent liq <b>bleach</b> superperborate				
IT	<b>Bleaching</b> agents (sodium superperborate, liq. compns. contg., stable)				
IT	Alcohols, compounds RL: USES (Uses) (alkoxylated, <b>bleach</b> compns. contg. sodium superperborate and, liq., stable)				
IT	Detergents (laundry, liq., <b>bleaching</b> agents for, sodium superperborate as)				
IT	Polyoxyalkylenes, compounds RL: USES (Uses) (mono(alkyl group)-terminated, <b>bleach</b> compns. contg. sodium superperborate and, liq., stable)				
IT	Surfactants (nonionic, <b>bleach</b> compns. contg. sodium superperborate and, liq., stable)				
IT	10543-57-4, Tetraacetythylenediamine 91125-43-8 94354-60-6 94354-68-4 RL: USES (Uses) ( <b>bleach</b> activators, liq. compns. contg. sodium superperborate and)				
IT	11138-47-9, Sodium perborate RL: USES (Uses) ( <b>bleach</b> and detergent compns. contg., liq., stable)				
IT	102-76-1 Triacetin 25322-68-3, Polyethylene glycol 25322-68-3D, Polyethylene glycol, monoalkyl ethers RL: USES (Uses) ( <b>bleach</b> compns. contg. sodium superperborate and, liq., stable)				
IT	11138-47-9, Sodium perborate RL: USES (Uses)				



(bleach and detergent compns. contg., liq., stable)  
 RN 11138-47-9 HCAPLUS  
 CN Perboric acid, sodium salt (8CI, 9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

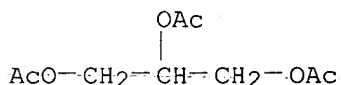
IT 102-76-1, Triacetin

RL: USES (Uses)

(bleach compns. contg. sodium superperborate and, liq., stable)

RN 102-76-1 HCAPLUS

CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



L69 ANSWER 15 OF 29 HCAPLUS COPYRIGHT 2001 ACS

AN 1992:472099 HCAPLUS

DN 117:72099

TI Detergent compositions in tablet form for improved **bleaching** of fabrics

IN Garvey, Michael Joseph; Sims, Peter Stanford

PA Unilever PLC, UK; Unilever N. V.

SO Eur. Pat. Appl., 16 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM C11D017-00

ICS C11D003-39

CC 46-5 (Surface Active Agents and Detergents)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 481792	A1	19920422	EP 1991-309597	19911017
	EP 481792	B1	19970122		
	R: CH, DE, ES, FR, GB, IT, LI, NL, SE				
	CA 2053433	AA	19920420	CA 1991-2053433	19911015
	CA 2053433	C	19970325		
	AU 9185843	A1	19920611	AU 1991-85843	19911015
	AU 643077	B2	19931104		
	BR 9104511	A	19920609	BR 1991-4511	19911017
	ES 2097193	T3	19970401	ES 1991-309597	19911017
	JP 04285699	A2	19921009	JP 1991-271424	19911018
	JP 2611071	B2	19970521		
	ZA 9108337	A	19930419	ZA 1991-8337	19911018
PRAI	GB 1990-22723		19901019		
	GB 1991-17862		19910819		

AB Detergent tablets contg. a persalt **bleach** (esp. Na percarbonate) and a **bleach** activator such as (Ac<sub>2</sub>NCH<sub>2</sub>)<sub>2</sub> give better **bleaching** performance than detergent powders of the same compn.

ST tablet detergent **bleaching** enhancement; percarbonate **bleach** detergent tablet; tetraacetylenediamine **bleach** activator tablet; laundry detergent **bleach** tablet

IT **Bleaching** agents

(persalts, laundry detergent tablets contg.)

IT Detergents

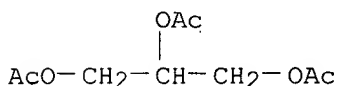
(laundry, tablets, contg. persalt **bleach** and **bleach** activator)

IT 102-76-1, Glycerol triacetate 10543-57-4 112436-71-2  
 142759-48-6

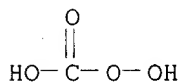
RL: USES (Uses)

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(bleach activators, laundry detergent tablets contg.)  
 IT 4452-58-8, Sodium percarbonate 37244-98-7  
 RL: USES (Uses)  
 (bleaching agents, laundry detergent tablets contg.)  
 IT 102-76-1, Glycerol triacetate  
 RL: USES (Uses)  
 (bleach activators, laundry detergent tablets contg.)  
 RN 102-76-1 HCAPLUS  
 CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



IT 4452-58-8, Sodium percarbonate  
 RL: USES (Uses)  
 (bleaching agents, laundry detergent tablets contg.)  
 RN 4452-58-8 HCAPLUS  
 CN Carbonoperoxoic acid, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

L69 ANSWER 16 OF 29 HCAPLUS COPYRIGHT 2001 ACS

AN 1991:124960 HCAPLUS

DN 114:124960

TI Method and product for enhanced **bleaching** of fabrics with  
 in-situ peracid formation

IN Kong, Stephen B.; Ratcliff, Steven D.; Steichen, Dale S.

PA Clorox Co., USA

SO Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM C11D003-39

ICS D06L003-00

CC 46-5 (Surface Active Agents and Detergents)

FAN.CNT 1

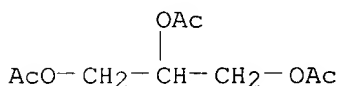
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 396287	A2	19901107	EP 1990-304246	19900420
	EP 396287	A3	19911002		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	JP 03007800	A2	19910114	JP 1990-107726	19900425
	CA 2015729	AA	19901104	CA 1990-2015729	19900430
	US 5505740	A	19960409	US 1993-119506	19930909
PRAI	US 1989-348673		19890504		
	US 1992-816857		19920102		
	US 1992-958447		19921007		

AB Good **bleaching** of stains on fabrics is obtained by using a product which employs a peracid precursor and a source of **H2O2** to form peracid in a wash soln. and contains a means for delayed release of an acid into the soln., i.e., peracid formation is enhanced at high pH but **stain removal** by peracid is enhanced at low pH.

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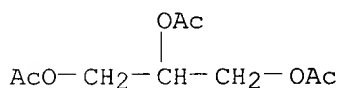
The delayed acid release is accomplished by controlled hydrolysis of an ester, use of an acid which dissolves slowly, etc. Adding  $[(CH_2)_5CO_2-p-C_6H_4SO_3Na]_2$  to aq.  $H_2O_2$  soln. at pH 10.5 gave rapid formation of **diperoxydodecanedioic acid** while subsequent release of an acid into the soln. (e.g., to give pH 8.5) enhanced the **bleaching** of stained fabrics.

- ST **peroxy acid bleaching** pH control;  
**diperoxydodecanedioic bleaching** pH control;  
**peroxydodecanedioic bleaching** pH control; laundry  
**bleaching peroxy acid**; sulfophenyl  
dodecanedioate **bleach precursor**; laundry **bleaching**  
**peroxy acid**
- IT **Bleaching agents**  
( peroxy acids, in laundering, pH control for  
activation of)
- IT Carboxylic acids, uses and miscellaneous  
RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(di-, delayed dissoln. of, in laundry bath contg. **peroxy**  
**acid**, for improved **bleaching**)
- IT 66280-55-5, **Diperoxydodecanedioic acid**  
RL: USES (Uses)  
( **bleaching agent**, precursor for, pH control in activation of)
- IT 110-15-6, Succinic acid, uses and miscellaneous 123-99-9, Azelaic acid,  
uses and miscellaneous 124-04-9, Adipic acid, uses and miscellaneous  
505-48-6, Suberic acid  
RL: PEP (Physical, engineering or chemical process); PROC (Process)  
(delayed dissoln. of, in laundry bath contg. **peroxy**  
**acid**, for improved **bleaching**)
- IT 96-34-4, Methyl chloroacetate 96-35-5, Methyl glycolate 116-54-1,  
Methyl dichloroacetate 626-35-7, Ethyl nitroacetate  
RL: RCT (Reactant)  
(hydrolysis of, for pH control in activation of laundry **bleach**  
)
- IT 102-76-1, Glycerol triacetate  
RL: RCT (Reactant)  
(hydrolysis of, in laundry bath contg. **peroxy acid**,  
for improved **bleaching**)
- IT 115652-77-2  
RL: USES (Uses)  
( **peroxy acid bleach precursor**, activation  
of, pH control in)
- IT 102-76-1, Glycerol triacetate  
RL: RCT (Reactant)  
(hydrolysis of, in laundry bath contg. **peroxy acid**,  
for improved **bleaching**)
- RN 102-76-1 HCAPLUS  
CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



- L69 ANSWER 17 OF 29 HCAPLUS COPYRIGHT 2001 ACS  
AN 1991:76573 HCAPLUS  
DN 114:76573  
TI Influence of disinfectants on epidermal Langerhans cells  
AU Laub, Ruediger; Moehring, M.; Beyer, C.; Welsch, N.  
CS Klin. Poliklin. Hautkrankh., Martin-Luther-Univ. Halle-Wittenberg, Halle,  
DDR-4010, Ger. Dem. Rep.  
SO Z. Gesamte Hyg. Ihre Grenzgeb. (1990), 36(10), 558-60  
CODEN: ZHYGAM; ISSN: 0049-8610

DT Journal  
 LA German  
 CC 4-3 (Toxicology)  
 Section cross-reference(s): 63  
 AB The daily topical application of 50 .mu.L **peroxyethanoic acid** (POE)-based disinfectants (wolfasteril, W and a further development of this, Ujostabil, U) and a H3PO4-based medical disinfectant (Ujosan neu, UN) to guinea pig skin for 1, 7, or 14 days resulted in all cases in a decrease in skin Langerhan cell (LC) no., whereby the effect was greatest for W with decreases to 67, 64.4, and 55.8% of control values after 1, 7, and 14 days, resp. Buffering of working disinfectant dilns. with 0.2M acetate buffer (pH 5.6) decreased the damage to LCs; for W LC no. decreases were 71, 73, and 68%, after 1, 7, and 14 days, resp. For U this only occurred after the 14-day, and for UV only after the 1-day, application.  
 ST skin damage **peroxyethanoic phosphoric acid** disinfectant  
 IT Buffer substances and systems  
     (peroxyethanoic and phosphoric acid-contg. disinfectants toxicity to skin response to)  
 IT 5699-44-5, **Peroxyethanoic acid** 7664-38-2, Phosphoric acid, biological studies  
 RL: BIOL (Biological study)  
     (skin damage from disinfectants contg., soln. buffering decrease of)  
 IT 102-76-1, Ujostabil 8065-77-8, Wofasteril 132052-74-5, Ujosan New  
 RL: BIOL (Biological study)  
     (skin damage from, soln. buffering decrease of)  
 IT 102-76-1, Ujostabil  
 RL: BIOL (Biological study)  
     (skin damage from, soln. buffering decrease of)  
 RN 102-76-1 HCAPLUS  
 CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



L69 ANSWER 18 OF 29 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1990:161068 HCAPLUS  
 DN 112:161068  
 TI Stable liquid cleaning compositions containing capped nonionic surfactant and dissolved organic **peroxy acid**  
 IN Barnes, Stephen George  
 PA Unilever PLC, UK; Unilever N. V.  
 SO Eur. Pat. Appl., 9 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM C11D003-39  
 ICS C11D001-72; C11D003-43  
 CC 46-5 (Surface Active Agents and Detergents)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 340000	A2	19891102	EP 1989-304209	19890427
	EP 340000	A3	19910130		
	EP 340000	B1	19940810		
	R: CH, DE, ES, FR, GB, IT, LI, NL, SE				
	US 4981606	A	19910101	US 1989-337519	19890413
	CA 1321338	A1	19930817	CA 1989-597596	19890424

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AU 8933744	A1	19891102	AU 1989-33744	19890427
AU 618343	B2	19911219		
JP 01315498	A2	19891220	JP 1989-109012	19890427
ES 2057115	T3	19941016	ES 1989-304209	19890427
BR 8902009	A	19891205	BR 1989-2009	19890428
ZA 8903192	A	19901228	ZA 1989-3192	19890428

PRAI GB 1988-10195 19880429

OS MARPAT 112:161068

AB The title compns., esp. useful for **removing stains** from fabrics before laundering, contg. org. solvents, capped alkoxyated nonionic surfactants, and dissolved org. **peroxy acids** and have good storage stability, retaining .gtoreq.30% of the **peroxy acid** after 2 mo at 25.degree.. A compn. contg. Rewopal MT 65 (Me ether of ethoxylated fatty alc.) 18.4, tert-BuOH 31.2, ethylene glycol 21.8, glycerol triacetate 23.0, and 1,12-**diperoxydodecanedioic acid** (I) 5.6% contains 4.55% I after 83 days of storage at 25.degree., vs. 1.65 with uncapped Synperic A7 instead of Rewopal MT 65.

ST cleaner liq **peroxy acid** stability; nonionic surfactant .  
liq **bleach** stability; **peroxydodecanedioic** stability  
liq cleaner

IT **Bleaching agents**  
(**peroxy acids**, liq. cleaners contg. capped nonionic surfactant and, stable)

IT Alcohols, compounds  
RL: USES (Uses)  
(C10-12, ethoxylated, liq. cleaners contg. dissolved **peroxy acid** and, stable)

IT Polyoxyalkylenes, uses and miscellaneous  
RL: USES (Uses)  
(benzyl- and C10-12-alkyl group-terminated, liq. cleaners contg. dissolved **peroxy acid** and, stable)

IT Detergents  
(cleaning compns., liq., contg. capped nonionic surfactant and **peroxy acid**, stable)

IT Alcohols, compounds  
RL: USES (Uses)  
(fatty, ethoxylated, liq. cleaners contg. dissolved **peroxy acid** and, stable)

IT 66280-55-5, **Diperoxydodecanedioic acid**  
RL: USES (Uses)  
(**bleaching agents**, liq. cleaners contg. capped nonionic surfactants and, stable)

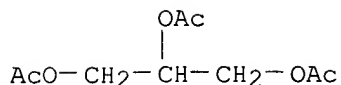
IT 75-65-0, tert-Butyl alcohol, uses and miscellaneous 84-74-2, Dibutyl phthalate **102-76-1**, Glycerol triacetate 107-21-1, 1,2-Ethanediol, uses and miscellaneous  
RL: USES (Uses)  
(cleaners contg. capped nonionic surfactants and **peroxy acid** and, liq., stable)

IT 9004-74-4D, monoalkyl ethers. 26403-74-7D, Polyethylene glycol monobenzyl ether, mono-C10-12-alkyl ethers 37281-47-3, Triton DF 12 126340-23-6, Rewopal MT 65  
RL: USES (Uses)  
(liq. cleaners contg. dissolved **peroxy acid** and, stable)

IT **102-76-1**, Glycerol triacetate  
RL: USES (Uses)  
(cleaners contg. capped nonionic surfactants and **peroxy acid** and, liq., stable)

RN 102-76-1 HCAPLUS

CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



L69 ANSWER 19 OF 29 HCAPLUS COPYRIGHT 2001 ACS

AN 1988:495134 HCAPLUS

DN 109:95134

TI Process for manufacture of **peroxyaldehydes** and **peroxycarboxylic acids**

IN Gaebelein, Klaus

PA Fed. Rep. Ger.

SO Ger. Offen., 13 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM C07C178-00

ICS C07C179-133; C07C179-127; A61K007-48

ICA A61K009-06; C09K015-06; A61K031-00

CC 45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes)

Section cross-reference(s): 25, 62, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3643323	A1	19880623	DE 1986-3643323	19861218
	DE 3643323	C2	19920806		
AB	<b>Peroxyaldehydes</b> (.alpha.-hydroxyhydroperoxides) and <b>peroxycarboxylic acids</b> are prepd. by the oxidn. of satd. alcs., aldehydes, or ketones with O3 or O3-contg. gases in presence or absence of solvents. These reaction products are useful for medicines (no data) and cosmetics (no data). PhCH2OH (200 mL) was ozonized with 200 mL/min of 5% O3 in O, producing, after 24 h, BzOOH and PhCH(OH)OOH.				
ST	<b>peroxycarboxylic acid</b> manuf; ozonization alc; benzyl alc ozonization perbenzoic acid; aldehyde ozonization <b>peroxyaldehyde</b> manuf; <b>hydroxyhydroperoxide</b> manuf aldehyde ozonization				
IT	Ozonization (manuf. of <b>peroxyaldehydes</b> and/or <b>peroxycarboxylic acids</b> by, of alcs. or aldehydes or ketones)				
IT	Cosmetics Pharmaceuticals (manuf. of, by ozonization of satd. alcs. or aldehydes or ketones)				
IT	Oxidation (of alcs. and aldehydes and ketones to <b>peroxyaldehydes</b> and/or <b>peroxycarboxylic acids</b> )				
IT	Alcohols, reactions Aldehydes, reactions Ketones, reactions RL: RCT (Reactant) (ozonization of)				
IT	Bactericides, Disinfectants, and Antiseptics (ozonized alcs. or aldehydes or ketones as, for human skin)				
IT	<b>Hydroperoxides</b> RL: PROC (Process) (hydroxy, manuf. of, by ozonization of alcs. and aldehydes and ketones, for medicines and cosmetics)				
IT	Carboxylic acids, preparation RL: PREP (Preparation) ( <b>peroxy</b> , manuf. of, by ozonization of satd. aldehydes and alcs. and ketones, for medicines and cosmetics)				
IT	56-81-5DP, 1,2,3-Propanetriol, ozonized 57-55-6DP, 1,2-Propanediol, ozonized 87-89-8DP, myo-Inositol, ozonized 108-93-0P, Cyclohexanol, KATHLEEN FULLER EIC1700 308-4290				

preparation 111-90-0DP, ozonized 25322-69-4DP, ozonized  
 25395-31-7DP, ozonized  
 RL: PREP (Preparation)

(manuf. of, for medicines and cosmetics)

IT 64-17-5DP, Ethanol, ozonized 100-51-6DP, Benzenemethanol, ozonized  
 108-94-1DP, Cyclohexanone, ozonized 25322-68-3DP, ozonized

RL: PREP (Preparation)

(manuf. of, for medicines or cosmetics)

IT 56-81-5, 1,2,3-Propanetriol, reactions 57-55-6, Propylene glycol,  
 reactions 64-17-5, Ethanol, reactions 87-89-8, myo-Inositol  
 100-51-6, Benzyl alcohol, reactions 107-21-1, Ethylene glycol, reactions  
 108-93-0D, Cyclohexanol, ozonized 108-94-1, Cyclohexanone, reactions  
 111-90-0 25265-75-2, Butylene glycol 25322-68-3 25322-69-4

25395-31-7

RL: RCT (Reactant)

(ozonization of)

IT 10028-15-6

RL: USES (Uses)

(ozonization, manuf. of **peroxyaldehydes** and/or  
**peroxycarboxylic acids** by, of alcs. or aldehydes or  
 ketones)

IT 25395-31-7DP, ozonized

RL: PREP (Preparation)

(manuf. of, for medicines and cosmetics)

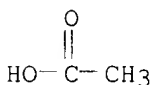
RN 25395-31-7 HCAPLUS

CN 1,2,3-Propanetriol, diacetate (9CI) (CA INDEX NAME)

CM 1

CRN 64-19-7

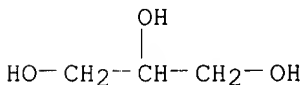
CMF C2 H4 O2



CM 2

CRN 56-81-5

CMF C3 H8 O3



IT 25395-31-7

RL: RCT (Reactant)

(ozonization of)

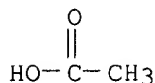
RN 25395-31-7 HCAPLUS

CN 1,2,3-Propanetriol, diacetate (9CI) (CA INDEX NAME)

CM 1

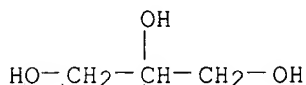
CRN 64-19-7

CMF C2 H4 O2



CM 2

CRN 56-81-5  
CMF C3 H8 O3



L69 ANSWER 20 OF 29 HCAPLUS COPYRIGHT 2001 ACS  
AN 1988:133887 HCAPLUS  
DN 108:133887  
TI **Bleaching** agent compositions for colored fabrics  
IN Aoyanagi, Muneo; Nakae, Tokuo  
PA Kao Corp., Japan  
SO Jpn. Kokai Tokkyo Koho, 4  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM C11D007-54  
CC 46-5 (Surface Active Agents and Detergents)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 62252500	A2	19871104	JP 1986-96220	19860425
AB	Neutral or weakly alk. title compns. contain 5/95-80/20 mixts. of activating agents and urea-H <sub>2</sub> O <sub>2</sub> adduct (I) prepd. in the presence of gypsum. Thus, a compn. of 60% I and 40% glucose pentaacetate showed pH 6.1, fabric <b>bleaching</b> efficiency 71%, and effective O retention after 30-day storage (at 40.degree., 80% humidity) 4.9%; vs. 10.4, 75, and 0, resp., for a compn. contg. Na <sub>2</sub> C <sub>2</sub> O <sub>6</sub> instead of I.				
ST	urea <b>hydrogen peroxide</b> adduct <b>bleach</b> ; color fabric <b>bleaching</b> agent				
IT	Amides, uses and miscellaneous Esters, uses and miscellaneous RL: USES (Uses) (activating agents, for <b>hydrogen peroxide</b> -urea adduct <b>bleach</b> for colored fabrics)				
IT	<b>Bleaching</b> agents ( <b>hydrogen peroxide</b> -urea adducts, contg. activating agents, for colored fabrics)				
IT	Carbohydrates and Sugars, esters RL: USES (Uses) (esters, activating agents, for <b>hydrogen peroxide</b> -urea adduct <b>bleach</b> for colored fabrics)				
IT	102-76-1	126-14-7	3891-59-6,	Glucose pentaacetate	7208-47-1,
	Sorbitol hexaacetate 10543-57-4, Tetraacetylenediamine				
	10543-60-9, Tetraacetylglucuril 13483-16-4 40437-08-9				
	113661-88-4D, Acetoxymethanesulfonic acid, salts				
	RL: USES (Uses) (activating agents, for <b>hydrogen peroxide</b> -urea adduct <b>bleach</b> for colored fabrics)				
IT	124-43-6 RL: USES (Uses)				

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(bleaching agents, contg. activating agents, for colored fabric)

IT 7722-84-1

RL: USES (Uses)

(bleaching agents, hydrogen peroxide-urea adducts, contg. activating agents, for colored fabrics)

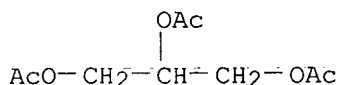
IT 102-76-1

RL: USES (Uses)

(activating agents, for hydrogen peroxide-urea adduct bleach for colored fabrics)

RN 102-76-1 HCAPLUS

CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



IT 124-43-6

RL: USES (Uses)

(bleaching agents, contg. activating agents, for colored fabric)

RN 124-43-6 HCAPLUS

CN Urea, compd. with hydrogen peroxide (H2O2) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 7722-84-1

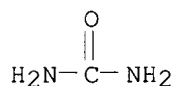
CMF H2 O2

HO-OH

CM 2

CRN 57-13-6

CMF C H4 N2 O



IT 7722-84-1

RL: USES (Uses)

(bleaching agents, hydrogen peroxide-urea adducts, contg. activating agents, for colored fabrics)

RN 7722-84-1 HCAPLUS

CN Hydrogen peroxide (H2O2) (9CI) (CA INDEX NAME)

HO-OH

L69 ANSWER 21 OF 29 HCAPLUS COPYRIGHT 2001 ACS

AN 1987:409396 HCAPLUS

DN 107:9396

TI Fungus-removing compositions

IN Nishiguchi, Hisao; Nakagawa, Junosuke

KATHLEEN FULLER EIC1700 308-4290

PA Kao Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C11D007-60  
 ICI C11D007-60, C11D007-18, C11D007-38, C11D007-32, C11D007-26  
 CC 46-6 (Surface Active Agents and Detergents)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 62004794	A2	19870110	JP 1985-144365	19850701
	JP 2843028	B2	19990106		
AB	The title compns., useful for cleaning bathrooms, etc., contg. H2O2 or H2O2-forming peroxides, activators, and peroxydisulfates. A mixt. of H2O2 5.0, tetraacetylglucuril (I) 5.0, Na peroxydisulfate 5.0, and water 85.0%, having pH 10.0, gave 90.3% removal of fungus vs. 23.4 without I.				
ST	cleaner peroxide fungus removal; peroxydisulfate cleaner fungus removal; tetraacetylglucuril peroxide fungus remover; bleach cleaner fungus removal				
IT	Bleaching agents (peroxides, cleaners contg., fungus-removing)				
IT	Detergents (cleaning compns., peroxide-contg., fungus-removing)				
IT	7722-84-1, Hydrogen peroxide, uses and miscellaneous 7727-54-0, Ammonium peroxydisulfate 7775-27-1, Sodium peroxydisulfate 15630-89-4, Sodium percarbonate RL: TEM (Technical or engineered material use); USES (Uses) (cleaning compns. contg., fungus-removing)				
IT	102-76-1	597-71-7	10543-57-4,	Tetraacetylenediamine 10543-60-9 RL: USES (Uses) (peroxide bleach activators, in fungus-removing cleaners)	
IT	7722-84-1, Hydrogen peroxide, uses and miscellaneous 15630-89-4, Sodium percarbonate RL: TEM (Technical or engineered material use); USES (Uses) (cleaning compns. contg., fungus-removing)				
RN	7722-84-1 HCAPLUS				
CN	Hydrogen peroxide (H2O2) (9CI) (CA INDEX NAME)				

HO-OH

RN 15630-89-4 HCAPLUS  
 CN Carbonic acid disodium salt, compd. with hydrogen peroxide (H2O2) (2:3) (9CI) (CA INDEX NAME)

CM 1

CRN 7722-84-1  
 CMF H2 O2

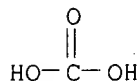
HO-OH

CM 2

CRN 497-19-8

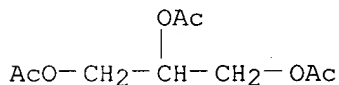
KATHLEEN FULLER EIC1700 308-4290

CMF C H2 O3 . 2 Na



● 2 Na

IT 102-76-1  
 RL: USES (Uses)  
 (peroxide bleach activators, in fungus-removing  
 cleaners)  
 RN 102-76-1 HCAPLUS  
 CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



L69 ANSWER 22 OF 29 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1987:442124 HCAPLUS  
 DN 107:42124  
 TI Non-aqueous liquid detergent composition and perborate anhydrous  
 IN Green, Robin John; Van der Linden, Arie; Bazley, Michael Raymond Frederick  
 PA Unilever N. V., Neth.; Unilever PLC  
 SO Eur. Pat. Appl., 11 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM C01B015-12  
 ICS D06L003-02; C11D007-18  
 CC 46-5 (Surface Active Agents and Detergents)  
 FAN.CNT 1

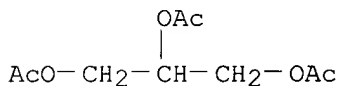
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 217454	A2	19870408	EP 1986-201599	19860917
	EP 217454	A3	19880330		
	EP 217454	B1	19920311		
	R: CH, DE, FR, GB, IT, LI, NL, SE				
	US 4772412	A	19880920	US 1986-910547	19860923
	AU 8663153	A1	19870402	AU 1986-63153	19860924
	AU 583425	B2	19890427		
	CA 1285845	A1	19910709	CA 1986-519074	19860925
	BR 8604690	A	19870623	BR 1986-4690	19860929
	ES 2001807	A6	19880616	ES 1986-2277	19860929
	JP 62113705	A2	19870525	JP 1986-233093	19860930
	JP 04075845	B4	19921202		
	ZA 8607451	A	19880525	ZA 1986-7451	19860930
PRAI	GB 1985-24064		19850930		
	GB 1985-31653		19851223		

AB Na perborate anhyd. prepd. by dehydration of Na perborate monohydrate (I) and having I-Na oxoborate ratio .gtoreq.1.5:1 is esp. useful in nonaq. liq. detergent compns. to improve dispensing behavior without impairing the chem. stability of formulations contg. a peroxy acid bleach precursor, esp. (Ac2NCH2)2.

ST perborate anhyd liq detergent; laundry detergent perborate anhyd; bleach perborate activator detergent; acetylenediamine

KATHLEEN FULLER EIC1700 308-4290

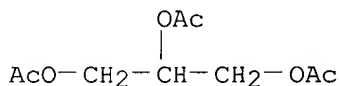
activator perborate detergent; stability perborate **bleach**  
 activator  
 IT Detergents  
     (perborate anhyd.-contg., stability of perborate activators in)  
 IT **Bleaching agents**  
     (sodium perborate, in liq. detergents, stability of  
     activators in)  
 IT 10332-33-9, Sodium perborate monohydrate  
     11138-47-9  
     RL: USES (Uses)  
         (bleaching agents, detergents contg. activators and, stable)  
 IT 102-76-1, Glycerol triacetate 10543-57-4, N,N,N',N'-  
     Tetraacetythylenediamine 25482-78-4 91459-83-5 94354-68-4  
     RL: USES (Uses)  
         (perborate **bleach** activator, in detergents, stability of)  
 IT 11138-47-9  
     RL: USES (Uses)  
         (bleaching agents, detergents contg. activators and, stable)  
 RN 11138-47-9 HCAPLUS  
 CN Perboric acid, sodium salt (8CI, 9CI) (CA INDEX NAME)  
 \*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
 IT 102-76-1, Glycerol triacetate  
     RL: USES (Uses)  
         (perborate **bleach** activator, in detergents, stability of)  
 RN 102-76-1 HCAPLUS  
 CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



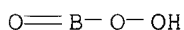
L69 ANSWER 23 OF 29 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1988:58367 HCAPLUS  
 DN 108:58367  
 TI Effect of some activators on decomposition of **sodium**  
**perborate** in aqueous solutions  
 AU Bunina, N. A.; Kalinina, N. V.; Nechesnyuk, G. P.; Kruchinin, V. A.  
 CS USSR  
 SO Zh. Prikl. Khim. (Leningrad) (1987), 60(9), 2091-4  
     CODEN: ZPKHAB; ISSN: 0044-4618  
 DT Journal  
 LA Russian  
 CC 46-5 (Surface Active Agents and Detergents)  
 AB The decompn. kinetics of Na perborate, a detergent **bleach**, was  
     detd. at 30-65.degree. in the presence of 0.001-0.5 mol/L acetylsalicylic  
     acid, **glyceryl triacetate**, sorbitol hexaacetate, and  
     glucosyl pentaacetate (I) as activators. The most efficient activator was  
     I which ensured the decompn. of 0.18 N Na perborate with the highest rate  
     const. (1.56 .times. 10<sup>-3</sup> s<sup>-1</sup>) and lowest conversion half-time (7.4 min)  
     at a low concn. of 0.011 mol/L. The rate consts. depended on activator  
     concns. which, in some cases, were limited by soly.  
 ST **sodium perborate bleach** activator; kinetics  
     decompn **sodium perborate**; catalyst decompn  
     **sodium perborate**  
 IT Dissociation catalysts  
     (acetic acid esters, for **sodium perborate**, activity  
     of)  
 IT Detergents  
     (bleaching agents for, **sodium perborate**

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as, activators for, acetic acid esters as)  
 IT Kinetics of dissociation  
 (of **sodium perborate**, in presence of acetic acid  
 esters)  
 IT **Bleaching agents**  
 (**sodium perborate**, activators for, acetic acid  
 esters as)  
 IT 50-78-2, Acetylsalicylic acid 102-76-1, **Glyceryl**  
**triacetate** 3891-59-6, Glucosyl pentaacetate 7208-47-1,  
 Sorbityl hexaacetate  
 RL: USES (Uses)  
 (**bleach** activators, for **sodium perborate**)  
 IT 7632-04-4, **Sodium perborate**  
 RL: USES (Uses)  
 (**bleaching** agents, for detergents, activators for, acetic  
 acid esters as)  
 IT 102-76-1, **Glyceryl triacetate**  
 RL: USES (Uses)  
 (**bleach** activators, for **sodium perborate**)  
 RN 102-76-1 HCAPLUS  
 CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



IT 7632-04-4, **Sodium perborate**  
 RL: USES (Uses)  
 (**bleaching** agents, for detergents, activators for, acetic  
 acid esters as)  
 RN 7632-04-4 HCAPLUS  
 CN Perboric acid (HBO(O2)), sodium salt (9CI) (CA INDEX NAME)



Na

L69 ANSWER 24 OF 29 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1987:35146 HCAPLUS  
 DN 106:35146  
 TI Toilet bowl cleaner compositions  
 IN Kato, Hitoshi; Shiozaki, Ryoji; Hiraide, Takashi  
 PA Kao Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C11D017-00  
 CC 46-6 (Surface Active Agents and Detergents)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61197698	A2	19860901	JP 1985-39649	19850228
AB	The 2-package title compns. with excellent detergency and staining prevention contain a <b>bleach</b> compn. and a compn. from (A) water-sol. compd(s). with threshold effect 0.1-60, (B) water-sol. inorg. compd(s). 5-95, and (C) water-insol. inorg. compd(s). 1-50% at A/(B + C) =				
	KATHLEEN FULLER EIC1700 308-4290				

0.01-1 and C/B = 0.01-1. Thus, a typical compn. comprised a package from polyethylene glycol lauryl ether sulfate Na salt 10, Na polymaleate 10, Na citrate 10, Na<sub>2</sub>SO<sub>4</sub> 20, MgSO<sub>4</sub> 30, and SiO<sub>2</sub> 20 parts, and another package of 50 parts Ca(ClO)<sub>2</sub> and 50 parts Ca(ClO)<sub>2</sub> and 50 parts NaCl.

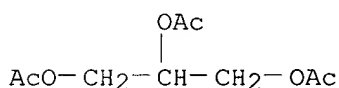
ST **bleach** toilet cleaner; polyoxyethylene sulfate toilet cleaner; polymaleate toilet cleaner; salt toilet cleaner; sodium sulfate toilet cleaner; magnesium sulfate toilet cleaner

IT Detergents  
(cleaning compns., two-package, for toilet bowls, contg. **bleach**)

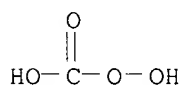
IT 68-04-2, Sodium citrate 77-92-9, uses and miscellaneous 102-76-1 497-19-8, Sodium carbonate, uses and miscellaneous 1344-09-8, Sodium silicate 1344-95-2 4452-58-8, Sodium percarbonate 7487-88-9, Magnesium sulfate, uses and miscellaneous 7631-86-9, Silica, uses and miscellaneous 7632-04-4, Sodium perborate 7647-14-5, Sodium chloride, uses and miscellaneous 7757-82-6, Sodium sulfate, uses and miscellaneous 7778-54-3, Calcium hypochlorite 9002-92-0, Polyethylene glycol lauryl ether 9004-82-4 25322-68-3, Polyethylene glycol 30915-61-8, Sodium polymaleate 37222-66-5, Oxone 78948-87-5  
RL: TEM (Technical or engineered material use); USES (Uses)  
(toilet bowl cleaners contg.)

IT 102-76-1 4452-58-8, Sodium percarbonate 7632-04-4, Sodium perborate  
RL: TEM (Technical or engineered material use); USES (Uses)  
(toilet bowl cleaners contg.)

RN 102-76-1 HCAPLUS  
CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)

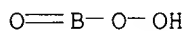


RN 4452-58-8 HCAPLUS  
CN Carbonoperoxoic acid, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

RN 7632-04-4 HCAPLUS  
CN Perboric acid (HBO(O<sub>2</sub>)), sodium salt (9CI) (CA INDEX NAME)



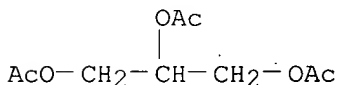
● Na

L69 ANSWER 25 OF 29 HCAPLUS COPYRIGHT 2001 ACS  
AN 1987:35144 HCAPLUS  
DN 106:35144

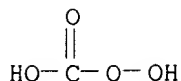
KATHLEEN FULLER EIC1700 308-4290

TI Toilet bowl cleaner compositions  
 IN Kato, Hitoshi; Shiozaki, Ryoji  
 PA Kao Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 14 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C11D017-00  
 CC 46-6 (Surface Active Agents and Detergents)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61197696	A2	19860901	JP 1985-38541	19850227
AB	The 2-package title compns. with excellent detergency and staining prevention comprise a <b>bleach</b> -contg. compn. and a compn. contg. (A) 0.1-60% water-sol. org. compd(s). with threshold effect and (B) 1-95% water-insol. inorg. compd(s). at A/B wt. ratio 0.01-5.0. Thus, a typical compn. comprised a package of polyethylene glycol lauryl ether sulfate Na salt 30, Na citrate 30, and Na aluminosilicate 40 parts and another package of 50 parts Ca(ClO) <sub>2</sub> and 50 parts NaCl.				
ST	<b>bleach</b> toilet cleaner; polyoxyethylene sulfate toilet cleaner; citrate toilet cleaner; aluminosilicate toilet cleaner; sodium chloride toilet cleaner				
IT	Zeolites, uses and miscellaneous				
RL:	TEM (Technical or engineered material use); USES (Uses) (toilet bowl cleaners contg.)				
IT	Detergents (cleaning compns., two-package, for toilet bowls, contg. <b>bleach</b> )				
IT	68-04-2, Sodium citrate 102-76-1, Triacetin 497-19-8, Sodium carbonate, uses and miscellaneous 676-46-0, Sodium malate 1344-00-9, Sodium aluminosilicate 1344-95-2, Calcium silicate 4452-58-8, <b>Sodium percarbonate</b> 7631-86-9, Silica, uses and miscellaneous 7632-04-4, <b>Sodium perborate</b> 7757-82-6, Sodium sulfate, uses and miscellaneous 7778-54-3, Calcium hypochlorite 9004-82-4 37222-66-5, Oxone 78948-87-5 RL: TEM (Technical or engineered material use); USES (Uses) (toilet bowl cleaners contg.)				
IT	1335-30-4 RL: USES (Uses) (zeolites, toilet bowl cleaners contg.)				
IT	102-76-1, Triacetin 4452-58-8, <b>Sodium percarbonate</b> 7632-04-4, <b>Sodium perborate</b> RL: TEM (Technical or engineered material use); USES (Uses) (toilet bowl cleaners contg.)				
RN	102-76-1 HCAPLUS				
CN	1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)				

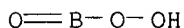


RN 4452-58-8 HCAPLUS  
 CN Carbonoperoxoic acid, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

RN 7632-04-4 HCAPLUS  
CN Perboric acid (HBO(O2)), sodium salt (9CI) (CA INDEX NAME)



● Na

L69 ANSWER 26 OF 29 HCAPLUS COPYRIGHT 2001 ACS

AN 1976:479623 HCAPLUS

DN 85:79623

TI Stable concentrated liquid **peroxygen bleach**

composition

IN Jones, John Paul

PA Procter and Gamble Co., USA

SO U.S., 4 pp.

CODEN:-USXXAM

DT Patent

LA English

IC C11D007-50

NCL 252104000

CC 39-9 (Textiles)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3956159	A	19760511	US 1974-526751	19741125
	CA 1071359	A1	19800212	CA 1975-237741	19751016
PRAI	US 1974-526751		19741125		

AB **Bleaches** contg. a ternary solvent mixt. 94-98, a **peroxyacid** 1-6, a stabilizer which chelates free metal ions 0.01-0.02, and a buffer 0-3 wt.% were storage-stable for extended periods. The ternary mixt. preferably contained tert-butyl alc. (I) [75-65-0] 25-35, ethylene diacetate (II) [111-55-7] 20-35, and glycerol triacetate (III) [102-76-1] 20-35 wt.%. Thus, addn. of 0.004g dipicolinic acid [499-83-2] and 2.25g diperazelaic acid [1941-79-3] to a mixt of I 20, II 10, and III 10 ml gave a **bleach** with active O content 5.35% after 8 days and 2.24% after 382 days.

ST **peroxyacid bleach** storage stable; peracid  
**bleach** storage stable; stabilizer dipicolinic acid  
**peroxide**

IT **Bleaching agents**

(**peroxyacids**, storage-stable)

IT 1941-79-3

RL: USES (Uses)

(**bleaching agents**, storage-stable, in ternary org. solvents)

IT 75-65-0 102-76-1 111-55-7

RL: USES (Uses)

(nonaq. storage-stable **peroxyacid bleaches** contg.)

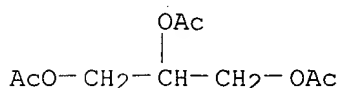
IT 499-83-2

RL: USES (Uses)

KATHLEEN FULLER EIC1700 308-4290



(stabilizers, for peroxyacid bleaches for textiles)  
 IT 102-76-1  
 RL: USES (Uses)  
 (nonaq. storage-stable peroxyacid bleaches contg.)  
 RN 102-76-1 HCAPLUS  
 CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



L69 ANSWER 27 OF 29 HCAPLUS COPYRIGHT 2001 ACS

AN 1974:537877 HCAPLUS

DN 81:137877

TI **Bleaching** compositions containing inorganic peroxide

IN Nakagawa, Yunosuke; Sato, Koitsu; Hakozaiki, Syori

PA Kao Soap Co., Ltd.

SO Japan. Kokai, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

NCL 13(9)B93

CC 46-6 (Surface Active Agents and Detergents)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 49048580	A2	19740510	JP 1972-92265	19720914
	JP 52006867	B4	19770225		
	DE 2344990	A1	19740321	DE 1973-2344990	19730906
	DE 2344990	B2	19810108		
	DE 2344990	C3	19811022		
	US 3901819	A	19750826	US 1973-395264	19730907
	FR 2200397	A1	19740419	FR 1973-33036	19730914
	FR 2200397	B1	19781110		
PRAI	JP 1972-92265		19720914		

AB Activators for inorg. peroxy acid bleaching

agents contain 10-90 parts acetate ester of a monosaccharide, a disaccharide, a sugar alc., a partial anhydride of a sugar alc., or an erythritol having .geq.2 adjacent ester groups and 10-90 parts polyol acetate ester m. .leq.30.deg.. Thus, a cotton fabric with tea stain was bleached 10 min in an aq. soln. contg. 0.5% Na perborate (I) [7632-04-4] and 0.5% 50:50 glucose pentaacetate [3891-59-6]-triacetin [102-76-1] at 20.deg. to improve the whiteness by 18.6%, compared with 2.1% for a similar treatment with I alone.

ST bleaching inorg peroxide activator; acetate sugar

peroxide activator; polyol acetate peroxide activator

IT Sugars, esters

RL: USES (Uses)

(acetates, perborate activators)

IT Bleaching agents

(sodium perborate, activators for, polyol acetates as)

IT 111-55-7 7208-47-1

RL: CAT (Catalyst use); USES (Uses)

(activators, for peracid bleaching agents)

IT 102-76-1 3891-59-6

RL: CAT (Catalyst use); USES (Uses)

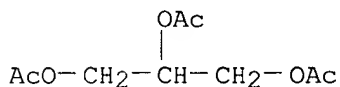
(activators, for perborate bleaching agents)

IT 7632-04-4

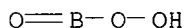
RL: USES (Uses)

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(bleaching agents, activators for, polyol acetates as)  
 IT 102-76-1  
 RL: CAT (Catalyst use); USES (Uses)  
 (activators, for perborate bleaching agents)  
 RN 102-76-1 HCAPLUS  
 CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



IT 7632-04-4  
 RL: USES (Uses)  
 (bleaching agents, activators for, polyol acetates as)  
 RN 7632-04-4 HCAPLUS  
 CN Perboric acid (HBO(O2)), sodium salt (9CI) (CA INDEX NAME)



Na

L69 ANSWER 28 OF 29 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1975:103181 HCAPLUS  
 DN 82:103181  
 TI In situ polymerizing dental fillers  
 IN Kliment, Karel; Tu, Robert S.  
 PA Nation Patent Development Corp.  
 SO Ger. Offen., 24 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 IC C61K  
 CC 63-7 (Pharmaceuticals)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2420351	A1	19741114	DE 1974-2420351	19740426
	DE 2420351	B2	19810806		
	DE 2420351	C3	19870709		
	US 3925895	A	19751216	US 1973-354866	19730426
	AU 7468256	A1	19751030	AU 1974-68256	19740424
	JP 50042694	A2	19750417	JP 1974-46762	19740426
	JP 52023509	B4	19770624		
PRAI	US 1973-354866		19730426		

AB Dental neck filling pastes which polymd. in situ consisted of a component A contg. hydroxyethyl methacrylate [868-77-9], ethylene glycol dimethacrylate [97-90-5] crosslinking agent, 2,2'-methylenebis(4-methyl-6-tert-butylphenol) [119-47-1] inhibitor, and N,N-bis(hydroxyethyl)-p-toluidine [3077-12-1] accelerator, and a component B contg. dibenzoyl peroxide [94-36-0] initiator and glycerol diacetate [25395-31-7] solvent. Both components contained BaSO4 [7727-43-7] and Cab-O-Sil [7631-86-9]. The polymn. velocity rate depended on the ratio of the components.  
 ST dental filler hydroxyethyl methacrylate  
 IT Dental materials and fillings  
 (hydroxyethyl methacrylate polymers in)  
 IT 97-90-5

KATHLEEN FULLER EIC1700 308-4290

RL: MOA (Modifier or additive use); USES (Uses)  
 (crosslinking agent, for **dental** methacrylate fillers)

IT 868-77-9  
 RL: BIOL (Biological study)  
 (**dental** fillers contg.)

IT 7631-86-9, biological studies 7727-43-7 25395-31-7  
 RL: BIOL (Biological study)  
 (**dental** methacrylate fillers contg.)

IT 3077-12-1  
 RL: BIOL (Biological study)  
 (polymn. accelerator, for **dental** methacrylates)

IT 94-36-0, biological studies  
 RL: CAT (Catalyst use); USES (Uses)  
 (polymn. catalyst, for **dental** methacrylate fillers)

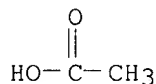
IT 119-47-1  
 RL: BIOL (Biological study)  
 (polymn. inhibitor, for **dental** methacrylate)

IT 25395-31-7  
 RL: BIOL (Biological study)  
 (**dental** methacrylate fillers contg.)

RN 25395-31-7 HCAPLUS  
 CN 1,2,3-Propanetriol, diacetate (9CI) (CA INDEX NAME)

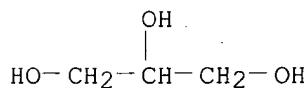
CM 1

CRN 64-19-7  
 CMF C2 H4 O2



CM 2

CRN 56-81-5  
 CMF C3 H8 O3



L69 ANSWER 29 OF 29 HCAPLUS COPYRIGHT 2001 ACS  
 AN 1974:439398 HCAPLUS  
 DN 81:39398  
 TI Sugar acetate activators for **peroxide bleaching** agents  
 IN Nakagawa, Yunosuke; Sato, Koitsu; Hakozaiki, Shori  
 PA Kao Soap Co., Ltd.  
 SO Ger. Offen., 13 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 IC D06L  
 CC 46-6 (Surface Active Agents and Detergents)  
 Section cross-reference(s): 39  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2344990	A1	19740321	DE 1973-2344990	19730906
			KATHLEEN FULLER EIC1700 308-4290		

DE 2344990 B2 19810108  
 DE 2344990 C3 19811022  
 JP 49048580 A2 19740510 JP 1972-92265 19720914  
 JP 52006867 B4 19770225  
 PRAI JP 1972-92265 19720914

AB Mixts. of sugar acetates, e.g. glucose pentaacetate (I) [3891-59-6], with polyhydric alc. acetates, e.g. triacetin (II) [102-76-1], were used as activators for inorg. **peroxide bleaching** agents, e.g. Na perborate (III) [11138-47-9]. Thus, 100 parts 0.5% III soln. contg. 0.5 part 50:50 I-II had **bleaching** value 18.6 in Terg-O-Tometer **bleaching** test (10 min, 20.deg.) bs. 10.6 or 2.1 for a III soln. contg. no II or no I and II, resp.

ST activator **peroxide bleaching** agent; sugar acetate activator **peroxide**; alc acetate activator **peroxide**; glucose acetate activator **peroxide**; triacetin activator **peroxide**; **sodium perborate bleaching** activator

IT **Bleaching agents**  
 (activators for inorg. **peroxide**, polyhydric alc. acetate-sugar acetate mixts. as)

IT Solubilizers  
 (polyhydric alc. acetates, for sugar acetates as **bleaching** agent activators)

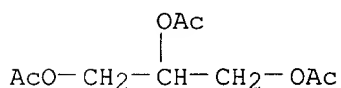
IT 126-14-7 3891-59-6 7208-47-1  
 RL: USES (Uses)  
 (activators, contg. polyhydric alc. acetates, for inorg. **peroxide bleaching** agents)

IT 102-76-1 111-55-7 4178-89-6  
 RL: USES (Uses)  
 (activators, contg. sugar acetates, for inorg. **peroxide bleaching** agents)

IT 3313-92-6 11138-47-9  
 RL: USES (Uses)  
 (**bleaching** agents, activators for, polyhydric alc. acetate-sugar acetate mixts. as)

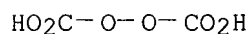
IT 102-76-1  
 RL: USES (Uses)  
 (activators, contg. sugar acetates, for inorg. **peroxide bleaching** agents)

RN 102-76-1 HCAPLUS  
 CN 1,2,3-Propanetriol, triacetate (9CI) (CA INDEX NAME)



IT 3313-92-6 11138-47-9  
 RL: USES (Uses)  
 (**bleaching** agents, activators for, polyhydric alc. acetate-sugar acetate mixts. as)

RN 3313-92-6 HCAPLUS  
 CN Peroxydicarbonic acid, disodium salt (8CI, 9CI) (CA INDEX NAME)



● 2 Na

RN 11138-47-9 HCAPLUS

KATHLEEN FULLER EIC1700 308-4290

CN Perboric acid, sodium salt (8CI, 9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*